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Included with this issue of *At Guelph* are inserts from the Macdonald Stewart Art Centre and Bookshelf Cinema.

## Ice Storm Closes Colleges

**K**EMPTVILLE AND ALFRED agricultural colleges were forced to close their doors last week following the crippling ice storms that hit eastern Ontario and Quebec. Heat, electricity and telephone service were lost to both campuses, which had to cancel the expected start of classes Jan. 12.

The colleges spent several days in the dark before portable generators arrived on the weekend. Residences at both campuses were transformed into emergency shelters for local residents and the more than 150 armed forces personnel who arrived to help with the disaster. As of *At Guelph* press time Jan. 12, dependable phone service and a reliable source of electricity were still absent, and it was expected that classes would not begin before Jan. 19.

With the loss of local phone service in eastern Ontario, U of G established a phone message service last Friday on behalf of both Alfred and Kemptville, providing information updated daily. The number is 519-767-5060.

Jocelyne Sarault, acting director of Alfred College, says that although this is "not an experience we'd ever want to repeat, it has been very revealing. We've learned how dependent we are on man-made elements of our lives, like electricity. And at the same time, we've discovered things about ourselves. On that note, I congratulate all the staff here at the college, who have shown wonderful co-operation and a cheerful attitude, and worked extremely hard to keep things going here and to help out in the community."



## A Boost for Immunity

Nutritional sciences professor Bill Woodward and research assistant Lyn Hillyer are studying how plant oils with different fat compositions promote healthy immune responses in young mice. Woodward is also part of a team that has earned kudos for a new blood-sampling technique for lab animals. See stories on page 6. PHOTO BY MARTIN SCHWALBE

## Economic Outlook Disappointing for Ontario Universities

*Funding 'increase' is a cut in real terms*

**P**RESIDENT MORDECHAI ROZANSKI says he is disappointed with the two-year funding allocation for post-secondary education announced by Ontario Finance Minister Ernie Eves Dec. 15, 1997.

"I am extremely disappointed by the minister's announcement," says Rozanski. "The executive heads of Ontario universities did everything possible to make it very clear to the government that the restoration of adequate public funding for universities was critical to ensure both accessibility and quality of education. Ontario has for some time ranked 10th among the 10 provinces in government funding for universities. As a consequence of this announcement, that's where we will remain — dead last."

For the first time, the provincial government has "bundled together" the funding envelopes for postsecondary education operating grants

and the Ontario Student Assistance Program (OSAP). Although the finance minister announced a budgetary increase to colleges and universities of \$30 million in 1998/99 and \$50 million in 1999/2000, much of this extra funding will probably be needed to cover the increased cost of OSAP, leaving operating grants unchanged, Rozanski says.

Pay equity grants may also be cut. Figures provided by MET indicate that this could result in an additional decrease of one-half of one per cent in U of G's operating grant.

Over the past four years, funding for postsecondary education has declined almost 25 per cent, with the largest cut — 15 per cent — coming via the provincial government's Common Sense Revolution over the past year, notes Rozanski. The current level of Ministry of Education and Training (MET) grant funding — and the level proposed for the next two years — represents less than half of U of G's total operating budget, he says.

"We are moving from being a publicly funded university to being a publicly assisted university. And the consequences for students in terms of accessibility, rising debt load and quality of education remain a matter of grave concern to me."

Rozanski says it's important to understand that even after painful retrenchment and budget cuts, the University's costs are unavoidably rising. "Increases in compensation for employees carry with them significant ongoing costs that compound from year to year. The University believes that these increases were essential, but must now find ways to cover these base increases. Inflation will also be a factor. Another example of these unavoidable cost increases is the effect that the decline in the value of the Canadian dollar has on the library acquisitions budget. In this context, the government's decision, which claims to be a zero-per-cent increase for 1998/99 and a one-per-cent increase for 1999/2000, may actually represent a cut in real terms unless these problems are resolved.

Rozanski adds that both he individually and COU collectively are pressing for a favorable clarification of these points, but that even at zero per cent and one per cent, there will

*Continued on page 3*

## Due South Looks North

*Guelph aims to increase international student presence by end of century*

**G**UELPH'S STUDENT recruitment program is feeling the warmth of some southern exposure.

U of G is one of a few first-rank Canadian universities whose international recruiting efforts have been profiled recently in several prominent U.S. newspapers. Sharing the spotlight with universities such as McGill, Queen's and Toronto, U of G has received coverage in *The Chronicle of Higher Education* (Oct. 24), *Chicago Tribune* (Nov. 9), *Wall Street Journal* (Nov. 26) and *Cincinnati Post* (Dec. 29).

The feature stories focus on Canadian recruitment efforts south of the border, but the United States is just one of a number of areas targeted by U of G's international recruitment plan.

"We'd like to increase the number of international students coming to Guelph from around the globe," says president Mordechai Rozanski. "And at the national level, attracting international students is a stated priority of both the Association of Universities and Colleges of Canada and the federal government's Department of Foreign Affairs and Trade."

According to the Canadian Bureau for International Education, international student enrolment at the graduate level across Canada declined 18.5 per cent from 1992/93 to 1995/96 (the most recent year for which figures are available), part of an overall erosion of international student numbers at universities.

The decline is evident at U of G, where international enrolment has fallen off in recent years. In fall 1982, 10 per cent of undergraduates and 19.7 per cent of graduate students were international students. By fall 1997, those figures had dropped to 2.5 per cent and 11.2 per cent respectively.

"Taken across Canada or just here at Guelph, we need to reverse that trend," says Rozanski.

Which is why in 1995, the University's Strategic-Planning Commission identified internationalism — of which enhanced international recruitment is part — as one of five strategic directions Guelph should take. To reclaim some of the lost ground, Senate has supported a recommendation that would increase the international presence on cam-

pus by the year 2000, with targets set at increasing the number of international graduate students by half and doubling the number of undergraduates.

"What we're looking for is a measured incremental increase in international enrolment," says registrar Chuck Cunningham. "There is built-in capacity for steady growth as part of a multi-point plan to reach out to students around the world."

Practical initiatives have followed. As a first step, tuition fees for international graduate students were cut by almost 50 per cent in 1996, making them the lowest in the province. More recently, the Office of Registrarial Services commissioned a recruitment video for potential applicants in East Asia. Produced in Teaching Support Services by Prof. Ron Stoltz, Landscape Architecture, the 18-minute video will be distributed to Canadian education centres in Malaysia, Singapore, Thailand and Hong Kong. Efforts in the region began last year when Rozanski and Cunningham visited Hong Kong to encourage interest in U of G. At the

*Continued on page 2*



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## SENATE REPORT

### Revised MET budget presented at last meeting of 1997

CHANCELLOR LINCOLN ALEXANDER was on hand for Senate's final meeting of 1997 on Dec. 9.

Alexander told senators he was "delighted" to be staying on as U of G's chancellor for another two years and said he shared their pride and joy in the University's

growing reputation for excellence, as evidenced by its recent second-place ranking among comprehensive universities in *Maclean's* magazine.

Alexander also lauded senators for their dedication and spirit over the past year.

Senators received for information the revised 1997/98 Ministry of Education and Training operating budget.

John Miles, assistant vice-president (finance), presented highlights of the revised budget, stressing that there are always fluctuations and that it's possible the provincial grant will be slightly less than expected.

U of G does not know the final grant figures until the end of the fiscal year, he said. Funding to offset pay equity costs, for example, could be less than anticipated.

Miles noted that U of G has not budgeted for a reduction and remains "cautiously optimistic" that a clawback will not be necessary during the 1997/98 fiscal year. (For

an update on the provincial economic outlook, see page 1.)

In Board of Undergraduate Studies (BUGS) business, Senate approved the continuation of the Latin American semester for five years, with the number of offerings to be determined by funding. Offered jointly with the University of Saskatchewan, the program began in the winter of 1997.

In addition, Senate accepted a proposed continuation-of-study model for associate diploma programs based on program averages.

Several proposed revisions to grading policies for undergraduate programs were also presented, but after much discussion, these were referred back to BUGS for final

revision before being approved by Senate.

Senate approved the closure of U of G's collaborative graduate program in plant genetics, which was launched in 1991. The Board of Graduate Studies noted that the program has generated little interest despite efforts to advertise and promote it. Three students are currently registered in the program.

Senate also approved three revisions to the criteria for non-degree credit certificate programs, as proposed by the Senate Committee on Open Learning.

The changes are aimed at increasing flexibility in the open learning system to better serve the needs of external clients.

## Brochure Captures Imagination

Continued from page 1

same time, they appointed Guelph graduate Kallista Wong to act as a recruitment "ambassador" in Hong Kong, a job she has taken on with dedication. Further recruitment visits to Asia are planned this year.

"Clearly, bright minds from the four corners of the globe contribute immeasurably to the quality and diversity of this institution," says Rozanski. "But first, we have to get them here. They have to know who, what and where we are. It is our responsibility to show prospective applicants that what they will take away from U of G is a world-class education that will stand them in good stead their entire lives."

Rob Stevens will testify to that. He received a B.Sc. in human kinetics from Guelph in 1985 and is now vice-president, Global Loans Syndications, with Merrill Lynch in New York City.

"I went from Guelph to California to work with a team of cardiologists," says Stevens. "What I took with me was a tremendous human biology background, thanks to U of G. My interest in business started at the University when I handled the sales and advertising for the annual human kinetics symposium. So later I went on to do my MBA and then was recruited by Merrill Lynch. The thing I would tell international students thinking of Guelph is that it puts you in an advantageous position in a global environment. At the interview stage — and in my day-to-day relations with clients — I'm able to capitalize on having experience in an international environment, of being conversant in international current affairs. My Guelph degree was highly transportable."

Third-year women's studies student Erin Kirkwood is counting on it. One of the initial reasons she came to Guelph from Cincinnati was the cost, but she believes that along

the way, her world view has been enlarged by studying in Canada.

"The cost was equal to or better than the U.S. universities I had been accepted to, so I chose Guelph. I suppose in high school classes back home, we only really learned one national viewpoint. What I appreciate here are the different historical perspectives. It opens your eyes to the fact that there's more than one view of events. And overall, I think the level and quality of education at U of G are equal to or better than that of some small private universities in the United States, which are perhaps better known."

Home in Ohio for the Christmas break, Kirkwood was photographed in a U of G sweatshirt for the *Cincinnati Post* feature on Canadian university recruiting.

Despite the media attention, the numbers show that the cross-border traffic is largely one-way. Some 3,000 to 4,000 Americans study in Canada, compared with 23,000 Canadians at colleges and universities in the States.

Cunningham sees no reason why more U.S. students don't follow in Kirkwood's footsteps and look north.

"U of G's academic ties with the United States are already there," he says, noting that 236 of Guelph's faculty have at least one degree from an American university and that 2,300 U of G alumni live in the United States, the highest number outside Canada. "We believe that Canadian and American students benefit from knowing each other better."

The most visible vanguard of the University's U.S. effort has been the "So You Think You Know Canada, Eh?" color brochure featuring the face of a chilled, teeth-chattering, parka-clad student on the cover. The brochure has apparently captured the imagination of editors and reporters alike, who have used the

cover artwork extensively to accompany their articles. Prepared by the Office of Registrarial Services, 50,000 copies of the brochure were mailed out to U.S. students in Grades 10 and 11 last May, resulting in about 5,000 replies requesting more information. By all standards, this is considered a high response rate.

Additional mailings to the respondents have occurred, along with visits by admissions staff to targeted areas. These efforts have resulted in numerous campus visits by prospective applicants, some from as far away as Texas.

BY ALEXANDER WOOLEY

## @GUELPH

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# FOOD SCIENCE CHAIR SOUGHT

A selection committee has been established for the position of chair of the Department of Food Science. Chaired by OAC dean Rob McLaughlin, the committee consists of food science professors Robert Lencki, Ron Subden and Yukio Kakuda; Prof. John Walsh, acting director of HAF; Prof. Bruce Holub, Human Biology and Nutritional Sciences; Wendy Bauer, Animal and Poultry Science; and graduate student Milena Corredig. The committee invites applications and nominations for the position, which is available May 1. The position is restricted to tenured U of G faculty. Applications should include a curriculum vitae and names of three referees and should be submitted to McLaughlin by Feb. 1.

## UNITED WAY PASSES TARGET

The 1997 campus United Way appeal raised \$200,918, well above its goal of \$186,400. Donations are still being accepted for the 1997 tax year. On Dec. 8, Hospitality Services catered a reception for United Way campus volunteers and committee members. Karen Kovats of Human Resources received the annual UW volunteer award. Anil Shrestha, a postdoctoral student in the Department of Crop Science, won the grand prize of a one-week Caribbean holiday for two donated by Ruth Golding of Golding Travel.

Other final prize winners were Elaine Cook, Clinical Studies, who won a cordless phone donated by fonorola and U of G Telecommunications; Martina Storey, Human Resources (fitness tag from the Department of Athletics); retiree Irene Nairn (massage from South City Physio); Jan Williams, Human Resources (\$50 gift certificate from Two George's Tavern); and Dean Lottitt, Horticultural Science (shoes from Billings Orthotics and Footwear).

## WINTERFEST '98 GEARS UP

Landscape architecture students will hold their annual Winterfest design conference Jan. 29 and 31. This year's theme is "City: New Visions for Urban Environments," focusing on urban open space design and planning. The conference will include guest speakers such as John Sewell and Michael Hough, panel discussions, workshops and a design charrette.

## IN MEMORIAM

Retired food science professor Delmar Biggs died Dec. 5 at age 83. An MSA graduate of OAC, he taught at Guelph from 1948 to 1979. He is survived by his wife, Jean; four children, Patricia Brown, Paul and Judd of Guelph and Donna of Nanaimo, B.C.; seven grandchildren; and two great-grandchildren. A tree will be planted in his memory Sept. 20 at 2:30 p.m. in the Wall-Custance Memorial Forest at the Arboretum.

# Dogs Chow Down on Purina's Generosity

*OVC receives two-year supply of pet food for animals housed on campus*

**F**OR TWO YEARS, dogs at U of G will be chowing down on Purina's top-of-the-line dog food... for free.

Ralston Purina Canada has donated a two-year supply of high-quality maintenance and prescription pet foods to Guelph for animals housed at the Veterinary Teaching Hospital and Animal-Care Services.

Each year, the University uses more than 37,258 kilograms of maintenance and prescription dog food and 13,337 kg of cat food.

Besides offering substantial savings to OVC, Purina's gift will bring other benefits.

"Now we'll be able to feed all of the University's cats and dogs the same high-quality food brand," says Denna Benn, director of Animal-Care Services. "That's good science and that's good health."

Purina's maintenance diets are targeted at healthy dogs and cats; the prescription diets are for animals with clinical conditions such as heart problems and obesity.

"We're a progressive company with unique formulas that can meet the needs of almost any animal," says Lisa Davidson, Purina's project manager, nutritional services. "Since we're highly involved with research, we continue to learn and make improvements to our products."

Davidson says the company's new partnership with U of G will also give Purina unique opportunities to work with the students, faculty and staff of OVC and veterinarians.

A plaque to acknowledge Purina's generosity will be placed in OVC's small-animal clinic.

Another company, Iams, will be



Riggs the dog stands guard over a bag of pet food donated to OVC by Ralston Purina. From left are Denna Benn of Animal-Care Services, Lisa Davidson of Purina and Mimi Arighi of the Veterinary Teaching Hospital.

supplying animal food to U of G when Purina's food can't meet an animal's needs or when there's a palatability problem. After two years, the roles of Purina and Iams will switch, with Iams becoming the major supplier.

"This is a very positive situation,"

says Hans Gelens of the small-animal clinic. "We're all looking forward to both the savings and nutrition expertise that these two companies will be providing to the University."

BY JENNY TYE  
OFFICE OF RESEARCH

## Company support vital for animal care at U of G

Company sponsorship at U of G isn't a new phenomenon, but it's a vital one — especially in the animal-care business.

Over the last three years, Effem Foods Ltd (Waltham's Diets) has donated maintenance and prescription diets for OVC's patient and teaching animals, and Hills Pet Nutrition Inc., Veterinary Medical Diets and Iams donated prescription diets. Hills has also supplied Animal-Care Services with maintenance feeds at a reduced cost

over the last few years.

"Sponsor generosity for our in-patient, teaching and research cat and dog feeding programs is extremely important," says Mimi Arighi, director of the Veterinary Teaching Hospital.

"As more cutbacks are made each year, it would be impossible to keep our services at the strength and excellence we're required to keep if it weren't for outside company support."

# University to Examine How Revenues Can Increase

*Continued from page 1*

be a substantial gap between the money the institution needs and the money available.

The Dec. 15 announcement gives boards of governors at colleges and universities the option to increase tuition fees by up to 10 per cent in 1998/99 and another 10 per cent in 1999/2000, where they deem it necessary to maintain the quality of students' programs. If colleges and universities choose to increase fees, they are required to set aside 30 per cent of any new tuition fee revenue to provide assistance to students in need.

The government also announced that fees will be deregulated for graduate and professional programs. It's not clear, however, what is meant by professional programs. One major question, for example, is the status of first-entry professional programs. The ministry says it will provide further details later this month.

Prior to the minister's announcement, U of G's Enrolment Management Committee, chaired by graduate studies dean Alastair Summerlee, was looking at revenue-generating enrolment strategies, particularly to help meet increased costs in the face

of continued government disinvestment. The committee is examining the implications of increased enrolment and is mindful of student concerns about tuition fee levels, Summerlee says.

He notes, however, that U of G has "undergone a series of very substantial cuts and expenditure reductions over the past several years. There are very few options left that would not have a major negative impact on the quality of teaching and research at this institution."

Accordingly, the administration is beginning its financial planning for

1998/99 with an examination of how revenues can be increased, including increased levels of enrolment, but other options are also being explored.

Whatever the outcome of these deliberations, the president is clear that rising tuition and continued government disinvestment cannot be the long-term solution.

"We will continue to actively and aggressively push the government to make long-overdue strategic investments in Ontario universities," he says.

BY DARLENE FRAMPTON

## PEOPLE

### TREVORS JOINS WHO'S WHO

Prof. Jack Trevors, Environmental Biology, has earned inclusion in *Who's Who in the World* 1998 for his national and international contributions to science. Published by Marquis Who's Who, the guide lists more than 40,000 of today's most influential people worldwide. To be chosen for inclusion, candidates must have held a position of responsibility or have attained a significant achievement in their field.

### LONG SERVICE HONORED

Employees marking their 25th year of service at U of G in 1997 were honored at a reception Nov. 24 in the Whippelltree. They are: College of Arts: Susan Morrison, dean's office; Hendrik Horn, Fine Art and Music; Irene Pages, Languages and Literatures.

CBS: David Noakes, Zoology.

CPES: Saul Goldman and Albert Woon-Fat, Chemistry and Biochemistry; Thomas Wilson, Computing and Information Science; John Holbrook and Gary Spoor, Mathematics and Statistics; George Renninger, Physics.

College of Social Science: Carmelina Riddi, dean's office; Louis Christofides and Robert Swidinsky, Economics; Rod Barron and Ernest Dalrymple-Alford, Psychology; Neil MacKinnon, Ken Menzies and Victor Ujimoto, Sociology and Anthropology.

OAC: Larry Martin, Agricultural Economics and Business; Gillian MacPherson, dean's office; Mark Evans, Land Resource Science.

OVC: Wendy Parker, Clinical Studies; Judith Flanagan and Jim Rahin, Nursing Care.

Facilities and Hospitality Services: Wayne Brittenden, Hospitality Services.

Registrarial Services: Sharon Anthony, Academic Programs.

Library: Tim Sauer, Collections; Ralph Daehn, Systems Services.

Physical Resources: Martin Hodgson, Engineering; Edwin Martin, Pauline McIsaac, Daniel Mollison, Albert Montgomery and Rosemary Thomson, Housekeeping.

Student Affairs: Susan Nuttley, Counselling and Student Resource Centre.



# THE CLASS SIZE CONUNDRUM

*Contrary to popular belief, research indicates that small classes are not necessarily better. Why not?*

BY SID GILBERT

WHEN I WAS FIRST APPROACHED by the Association of Universities and Colleges of Canada to review the postsecondary research on class size, I expected to find that small classes produced better thinking and reasoning outcomes.

I was somewhat surprised to find that although early research did identify statistically significant small-class benefits for motivating students, changing attitudes and enhancing higher-order thinking and reasoning, it showed little impact on knowledge acquisition or general academic skills. In addition, although the differences between small and large classes were statistically significant, they were very small, that is, they were not substantively important.

Later research produced some interesting findings. In the first place, students and faculty members tend to prefer small classes. And although we may like small classes, that does not necessarily make them better. Second, in one study of 4,000 courses at 16 campuses in the United States, teaching evaluations became less favorable as class sizes approached 250, then became more favorable for even larger classes. Third, the preference for small classes referred to above varies by some interesting background characteristics. First-year college students, for example, prefer small classes, but upper-division students prefer large ones.

These and other similar findings have led researchers to reformulate the question from "Does class size matter?" to "What are the dimensions of effective teaching and how do these vary by class size?" The results indicate that it is not so much the size of the class that matters, but what goes on in the class.

Studies of teaching effectiveness have found that course organization and instructor practices and characteristics are important in producing positive student outcomes. Instructor characteristics that make for effective teaching are:

- competency, experience, knowledge;
- concern for students;



- enthusiasm/energy level; and
- speaking ability — organization and clarity.

Course organization aspects that produce positive outcomes are:

- focus on thinking and reasoning rather than rote memorization;
- personal faculty-student and student-student contact;
- active learning;
- meaningful participation and involvement in the class;
- explicit course goals and student outcome targets; and
- planned course content and procedures.

What is most interesting is that although there are some constraints, these characteristics do not depend on class size. Instructors in large classes are often extremely energetic, organized, caring and knowledgeable. Large classes often have explicit goals with planned content and procedures, including active learning and an emphasis on higher-order cognitive skills. Personal contact is likely the most difficult aspect to incorporate into large classes, but there are ways to maximize both peer and faculty contact.

Not all large classes need be large, dull, boring lectures. On the other hand, not all small classes involve intense contact with enthusiastic, knowledgeable, organized and effective instructors.

When I give talks on class size, I ask members of the audi-

ence to raise their right hand if they have been in a small class that was not effective, then to raise their left hand if they have experienced an effective large class. Between two-thirds and three-quarters of the audience will have at least one hand in the air, and quite a few have both.

We know, based on our own experience, that small classes are neither necessary nor sufficient for learning. Similarly, we know that large classes do not automatically condemn the learner to dull, passive listening.

Sometimes I get attacked for these findings. Colleagues say that surely I could do a better job teaching 20 students than 200. My response, based on the research, is no. I am

lethargic, ignorant, disorganized and ineffective no matter how many are out there. This underscores the point that it's not what can be done but what is done that's at issue. It also provides an opportunity to address the collective aspect of teaching. Some instructors perform well in smaller settings; others perform well in larger settings. Why not vary class size and try to ensure that some matching occurs with experience, competencies and talents?

Colleagues also say the workloads differ for 20 students versus 200, a point I am willing to concede. But this is another issue. What is a fair and equitable distribution of work is a different question than what features produce positive student outcomes.

Finally, the idea by itself that class size is not as important as usually thought has led some people to conclude: "Fine, let's just pack students and instructors into the largest rooms possible and save some money."

As the research findings indicate, this misses the essential point that what goes on in the class — the course organization, management, instructor characteristics and practices — is fundamentally important for student learning, and as a result, we should pay great attention to these aspects.

*Prof. Sid Gilbert is a faculty member in the Department of Sociology and Anthropology.*

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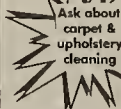
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# A CONSUMING INTEREST

*Studies in nutrition and aging bring FACS grad back to Guelph roots*

BY ALEXANDER WOOLEY

**A**N ELDERLY WOMAN living alone decides to skip lunch. A pension cheque not due till the following Tuesday, she neglects to eat a proper dinner that night, too. She may not know it, but this woman could be approaching a line that places her life in danger.

When and why she crosses that line is what Prof. Heather Keller, Family Studies, an expert on nutrition and aging, wants to discover.

"What I'm hoping to find is what causes seniors already at risk to be put over the top, requiring long-term care or hospitalization or resulting in mortality," says Keller. "We want to locate and identify the risk factors, the predictors."

Her curiosity is a shared one, judging from a significant grant she received in October from Hamilton Health Sciences Corporation to fund a four-year study into the problem. She hopes her research will eventually lead to a standardized screening assessment system that will measure critical factors and that could be used across the country to provide warning signs of when a senior is at high risk.

Keller's combined training as a dietitian, epidemiologist and clinical researcher with a wealth of hands-on experience gives her several leads on what the key factors could be.

"Is it people with good family networks who don't require that long-term care or hospitalization? How much does nutrition play a role? Does in-home help lessen the risk? Social support, income and functional abilities — being able to go out and shop for groceries — are all potential contributing factors."

The demand for Keller's expertise is apparent in the numbers. In 1990, 270,000 seniors in Canada required substantial community support, and 230,000 were institutionalized. It's estimated that by 2031, 1.5 million seniors will require substantial support.

A greying baby-boomer generation and longer life spans contribute to making aging a growth discipline. In 1991, the 65-and-over age group represented 11.6 per cent of Canada's total population; by 2021, it will represent 18.6 per cent and by 2031, 22.7 per cent.



Keller notes that eating right is something that should be practised at all ages, preferably among convivial company.

"A large part of good nutrition is social," she says. "People across all age groups don't eat as well or as healthily when they're on their own. The difference is that younger people just recover quicker than the elderly do."

Another factor that cuts across age groups is income. "Seniors especially can fall into a trap of regarding food as an 'adjustable' expense. They might prioritize items that must be paid and are of a fixed amount — rent, heat — over eating a healthy meal."

Keller cites another revealing statistic — a man or woman 85 or older with no spouse is 12 times as likely to be institutionalized as a senior of the same age group who lives with a spouse.

Appointed to the Department of Family Studies in 1996, Keller is one of the newest faculty members in FACS, but she's not a newcomer to U of G. In fact, her interest in aging issues has taken her full circle back to Guelph, where she received her undergraduate degree in applied human nutrition in 1989. After earning a master's degree in clinical nutrition at McGill University, she worked as a registered hospital dietitian in London and obtained a PhD in epidemiology and biostatistics from the University of Western Ontario in 1996.

"When I started at Guelph, I took gerontology courses and became fascinated with the subject matter," says Keller. Later, she served as a Natural Sciences and Engineering Research Council (NSERC) research assistant to family studies professors Donna Woolcott and Anne Martin Matthews, whom she credits as early mentors.

"They saw my abilities in terms of research and let me develop my skills and a sense of independence. The NSERC experience was valuable; it provided me with the tools to go out and work on anything."

Woolcott, now chair of the Department of Family Studies, says she's delighted to have Keller back at Guelph.

"She's a wonderful addition to our faculty. She brings lots of energy, ideas and a unique expertise that combines nutritional epidemiology, clinical nutrition and a very specialized knowledge in the area of nutrition and the elderly. These are all very hot topics in the field of human nutrition today. She is also a very talented teacher. We've had great feedback from her students, and she is revamping some of our curriculum in the field of nutritional assessment."

Keller's teaching duties at Guelph include courses on nutritional assessment and nutritional management of disease states. She also has two other research proposals in the works. One focuses on nutrition and feeding behavior of Alzheimer's patients; the other would involve setting up a first-of-its-kind nutritional risk-screening program in long-term care institutions.

## Canadian Literature Comes of Age

*Internationalism emerges as dominant influence on Canadian writing in second edition of Oxford Companion*

**T**HE SECOND EDITION of *The Oxford Companion to Canadian Literature* is a celebration of the coming of age of Canadian literature, says retired U of G English professor Eugene Benson, co-editor of the publication.

Weighing in at 1,199 pages and containing 1,100 entries written by 325 contributors, the new edition covers fiction, poetry, drama and criticism and explores such current genres as science fiction, multicultural literature, and gay and lesbian literatures in a Canadian context.

The book was launched this fall at the 18th International Festival of Authors in Toronto, where it was named outstanding book.

It contains numerous author entries, bibliographies, a thorough examination of language issues and a complete overview of Canadian literature from the 17th century to the present. Intended to be of interest to average readers as well as scholars, the *Companion* was edited by Benson and

William Toye, former editorial director of Oxford University Press Canada and general editor of the first edition of *The Oxford Companion to Canadian Literature*, published in 1983.

The overriding theme of the new *Companion* is the emergence of internationalism as a dominant influence in Canadian writing. Whereas the first edition of the *Companion* was primarily concerned with nationalism, the second edition is preoccupied with literature that is global in outlook, says Benson.

"The *Companion* suggests that the whole question of national identity is less important than it was 14 years ago. Canadian writers are more concerned about definition of self and place in an international context."

The remarkable transformation of Canadian literature began in 1967 with the publishing of an original *Companion* under the joint title of *Oxford Companion to Canadian History and Literature*, followed in 1983

by the first edition of a *Companion* devoted solely to Canadian literature.

"The first editor was almost apologetic because it was felt there wasn't enough Canadian literature for a *Companion*," says Benson. "Now, there is no doubt there is enough."

The new edition reflects the development of notable Canadian writers as well as literary themes. At the time of the 1983 edition, many writers such as Margaret Atwood, Timothy Findley and Alice Munro were in mid-career. Now they have reached full career, and many promising new writers, including writers from South-east Asia and the Caribbean, have appeared, adding much richness and depth to the definition of Canadian literature.

"I believe this is a period of consolidation in Canadian literature," says Benson. "As soon as you free yourself from the bonds of colonization, there is a freeing of the imagination."

The content of the *Companion*

was overseen by an editorial board of scholars from across Canada, who advised the editors on new entries and suggested contributors. Benson and Toye spent 2 1/2 years assigning and organizing the entries with the assistance of 325 contributors, including 132 new ones.

Eight U of G faculty members contributed entries to the companion: Profs. Diana Brydon, Ajay Heble, Donna Pennee Palmateer, Mary Rubio, Tim Struthers, Marianne Micros and Gillian Siddall of the School of Literature and Performance Studies in English and Prof. Terry Crowley, History.

Guelph earned a mention in several entries related to Canadian writers. Jane Urquhart, winner of the 1997 Governor General's Award for fiction for her novel *The Underpainter*, is a 1971 graduate of U of G. John Steffler, whose novel *The Afterlife of George Cartwright* was nominated for a Governor General's Award in 1992, completed a master's degree

in English at Guelph in 1974 under Benson's supervision. U of G drama professor Judith Thompson has won two Governor General's Awards — in 1984 and 1989 — for her playwrighting.

Benson recognizes that the book may meet with criticism because of perceived omissions or oversights, but he hopes readers will embrace its overall goal.

"A *Companion* is intended to entertain, to enlighten and to help," he says. "I hope that readers of *The Oxford Companion to Canadian Literature* will regard it as a friend as well as a resource."

Author of a number of novels, plays and librettos, Benson is also co-editor of *The Oxford Companion to Canadian Theatre* (1989) and *The Encyclopedia of Post-Colonial Literatures in English* (1994) with Leonard Conolly, a former associate vice-president (academic) at U of G.

BY MARGARET BOYD



# Being Nice to Millions of Mice

U of G researchers win award for easing stress on laboratory animals

**M**ILLIONS OF LABORATORY animals will experience less distress from blood sampling thanks to a new procedure developed at Guelph.

Prof. Bill Woodward and M.Sc. student Kimberley Shipp, Human Biology and Nutritional Sciences, have found a quick, simple and inexpensive way to improve blood withdrawal from research animals. Their discovery, based on research with mice, captured top honors in a competition held by the U.S.-based Working for Animals in Research, Drugs and Surgery.

Woodward says the success of this work speaks volumes for U of G research in animal welfare.

"It's no accident that this kind of significant refinement in research animal care occurred at Guelph. There is a mind set and attitude here in the research community that is promoted by the University. U of G is a leader in animal welfare."

The researchers made their discovery while studying how stress from severe malnutrition affects the immune system of mice, research designed to ultimately gain a better understanding of the relationship between malnutrition and human immunity.

"A low-stress blood-withdrawal procedure was necessary to the immunity project," says Woodward. "We didn't expect the technique to win international recognition."

Here's what led to their discovery. When mice — or humans — are under stress, a steroid hormone called a glucocorticoid (cortisol in the mouse) is released into the blood. It is well documented that glucocorticoids are powerful immune regulators. By measuring

the level of this hormone in the blood, the amount of stress that malnutrition imposes on an animal can be assessed.

But before Shipp and Woodward could investigate this, they had to determine the normal level of corticosterone in mice.

"The existing literature suggests a very broad normal range, from 10ng to 400ng/mL blood, depending on which study you look at," says Woodward. "We needed to find a clear value or range for the unstressed mouse that we could base our research on."

To do this, blood should be taken from the mouse before the animal can react to the stress imposed by the sampling process. Published research suggests there's a two- to four-minute delay before a mouse releases corticosterone in response to stress. But Woodward and Shipp weren't convinced this was accurate because the existing studies showed such variation in measured corticosterone levels. They had a hunch that mice react to stress much more quickly. Because several minutes are involved in most anesthesia procedures, this could confound blood test results. So they aimed to decrease the exposure time of the mice to all possible sources of stress prior to sampling.

They chose carbon dioxide as an anesthetic because it's known to cause less irritation than the more popular inhalant anesthetics, and it causes rapid loss of consciousness.

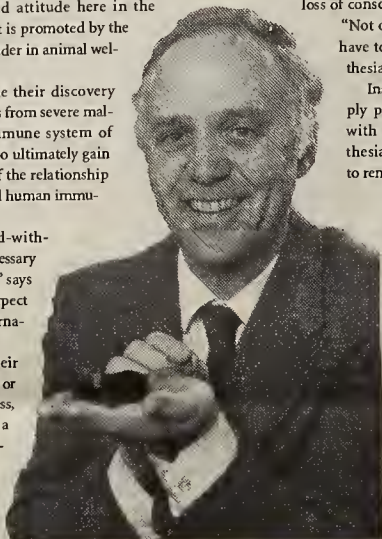
"Not only that, the animals never have to be handled prior to anesthesia," says Woodward.

Instead, the mouse cage is simply placed in a chamber filled with carbon dioxide. The anesthesia takes a scant five seconds to render the mouse unconscious.

Subsequent studies by Woodward and Shipp show increases in blood corticosterone if the procedure takes longer than 30 seconds from the moment the cage is first disturbed, proving that response time estimates in earlier studies were inaccurate.

This research is sponsored by the Natural Sciences and Engineering Research Council and McKellar Structured Settlements Inc.

BY TAMMY GRIME  
OFFICE OF RESEARCH



Prof. Bill Woodward

PHOTO BY MARTIN SCHWALBE

# Right Choice of Dietary Fats Could Enhance Immunity

Some plant oils may be particularly potent stimulators of immune development in the young

**C**HOOSING VEGETABLE OILS with the right kind of fats could be both heart-smart and good for your immune system, say Guelph researchers. Prof. Bill Woodward and research assistant Lyn Hillyer, Human Biology and Nutritional Sciences, believe that some plant oils — like soybean oil — may be particularly potent stimulators of immune development in the young.

Along with collaborative partner Tammy Bray, a former Guelph faculty member who is now at Ohio State University, they're studying how plant oils with different fat compositions promote healthy immune responses in young mice.

"We have some encouraging indications that enhanced immune development can be achieved by manipulating dietary fats," says Woodward. "Now we are trying to confirm these results. If we can do that, we can then determine what components of plant oils are important in promoting immune development."

Many consumers know that plant oils low in saturated fats and high in specific kinds of unsaturated fats are important for heart health. But Woodward and Bray's research goes one step further — they think oils with certain key characteristics may promote immune development. They're looking at two categories of unsaturated fats called "n-3" and "n-6" fatty acids.

Woodward believes it may be the amount of n-3 fatty acids in plant oils — and the ratio of n-3 to n-6 — that determines an oil's ability to promote

immune development.

"Animals fed diets containing high levels of oils rich in n-6 fatty acids often show depressed immunity," says Woodward. "In contrast, plant oils containing n-3 fatty acids seem to be associated with enhanced immune function, although some of these oils are also rich in n-6 fatty acids."

In their preliminary work, the researchers found that young mice fed a diet supplemented with soybean oil (which has an above-average n-3:n-6 ratio) showed a significant improvement in immune development.

Now they're scaling up the research. They're comparing six different plant oils, each with unique concentrations and proportions of n-3 and n-6 unsaturated fatty acids. Woodward hopes to be able to correlate the fatty acid contents of the plant oils with their ability to promote immune development.

"If we can identify what components of the oils — or combinations of components — are responsible for the ability of certain plant oils to promote immune development, then we can begin to have some predictive ability. This may eventually allow us to extend our results to make recommendations for human dietary consumption."

This research is sponsored by the Ontario Ministry of Agriculture, Food and Rural Affairs and the Ontario Soybean Growers' Marketing Board.

BY JEFF STUART  
OFFICE OF RESEARCH

# A Time of the Signs

**U**OF G RECENTLY EARNED KUDOS from the Ontario Association of Chiefs of Police (OACP) for signing on with the provincial Highway Help Program.

The association presented a ceremonial 200,000th Highway Help sign to U of G representatives Keith McIntyre, director of Security Services, and Lucie Turner, manager of Parking

Administration, at a gathering at Guelph Police Service Headquarters. The University also received a certificate of appreciation for embracing and promoting the program.

"We are always trying to enhance personal safety both on and off campus," says Turner. "As a result, we didn't hesitate to get involved with this program. The comments we received were very

positive, and we encouraged other institutions to become involved."

The program, launched by the association in April 1996 and recognized by police services province wide, establishes a simple and uniform method for providing road assistance. A stranded motorist hooks the highly visible "Call Police" sign from the car window, and a passing motorist uses a cellular phone

or CB radio to call "OPP or 911 to summon police to the scene."

The success of universities like Guelph in promoting the program jointly with local police services has led the OACP to solicit partnerships with General Motors, 3M Canada and other businesses. Guelph Police Chief Lenna Bradburn calls Highway Help a "tremendous assistance to policing."



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# CLASSIFIEDS

## FOR SALE

1994 Mazda B4000 SE 4x4, extra cab plus, bed liner, Tonneau cover, tilt, cruise, tinted windows, sliding rear window, red with grey interior, excellent condition, 96,000 kilometres, 821-1893 after 5 p.m.

Two pairs of women's skates, size 8, one pair in new condition, 824-7969 after 5:30 p.m.

Custom dog sketches by well-known artist specializing in lifelike animal sketches, 824-1397.

Computers: 486/25 with Packard Bell monitors (three), 386 with VGA monitors (two) and a 386 with Packard Bell monitor, Michelle, Ext. 8513.

1983 Volvo DL standard four-door sedan, well maintained, 200,000 miles, excellent condition, Ext. 3638 or 837-1732.

Crystal five-light chandelier with embossed scrollwork; four-light touch-control lamp, glass with gold; nine-drawer dresser with mirror and four-drawer dresser, solid dark wood; night tables, dark

green; shopping cart; baby stroller; portable camping toilet; balloon valances, beige with small flowers, 11 1/2" wide, Ext. 3044 or 821-1879.

## FOR RENT

Furnished one-bedroom basement apartment, private entrance, bright and warm, quiet neighborhood, includes washer/dryer, parking, non-smoker, no pets, \$450 a month including utilities, references required, 763-2632.

Two-bedroom furnished house available for two months from Feb. 1 to March 31, 10-minute walk to University, mature persons only, no pets, no smoking, \$875 a month including utilities, 822-6193.

Three-bedroom newer detached home in south end, five minutes to campus, available now for short-term lease, 836-5907.

Three-bedroom bungalow, excluding basement apartment, close to river, trails and bus, non-smokers, no pets, \$825 a month plus utilities, 824-0246.

Rooms for students in shared townhouse, walking distance to campus, on bus line, available now, \$375 a month inclusive, leave message at 767-6072.

Furnished two-bedroom condo in historical building in centre of Guelph, everything supplied, rent by day, week or month, reasonable rates, available April 1, Carol, 823-1857 or 837-7537.

## AVAILABLE

Piano lessons from caring, patient and experienced teacher, advance at your own speed, popular music lessons for all ages, 824-1397.

Typing and dictaphoning, essays, papers, etc., 837-9438 after 5 p.m.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Linda Graham on Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@exec.admin.uoguelph.ca. For more information, call Ext. 6581.

# GRAD NEWS

The final examination of Anne Malleau, an M.Sc. candidate in the Department of Animal and Poultry Science, is Jan. 16 at 9:30 a.m. in Animal Science and Nutrition 306. The thesis is "Effects of a Simulated Brooding Cycle on the Behavior and Growth of Broiler and Layer Chicks." The adviser is Prof. Ian Duncan.

The final examination of PhD candidate Benjamin Amoh, Economics, is Jan. 16 at 10 a.m. in MacKinnon 132. The thesis is "An Empirical Analysis of the Impacts of Taxes and Royalties on Petroleum Supply in Alberta." The adviser is Prof. John Livernois.

The final examination of Jane Ellenton, an M.Sc. candidate in the Department of Food Science, is Jan. 16 at 12:30 p.m. in the Murray Room of Graham Hall. The thesis is "Cellular Morphology of Bifidobacteria and Their Survival Encapsulated in Calcium Alginate Beads." The adviser is adjunct professor Linda Harris.

The final examination of M.Sc. candidate Angela Ewtushik, Animal and Poultry Science, is Jan. 16 at 2:30 p.m. in Animal Science and Nutrition 306. The thesis is "Performance and Intestinal Development of Early Weaned Piglets Receiving Diets Supplemented with Selected Amino Acids or Polyamines." The adviser is Prof. Ron Ball.

The final examination of PhD candidate Jeffrey Stuart, Zoology, is Jan. 20 at 8:30 a.m. in Axelrod 265A. The thesis is "Evolutionary and Adaptive Aspects of Lipid and Ketone Body Metabolism in Gastropod Molluscs." The adviser is Prof. Jim Bal-lantyne.

The final examination of Milena Corredig, a PhD candidate in the Department of Food Science, is Jan. 20 at 9 a.m. in Graham Hall 3301. The thesis is "Properties of Milk-Fat Globule Membrane Derived from Buttermilks from Different Sources." The adviser is Prof. Douglas Dalgleish.

The final examination of M.Sc. candidate Jacqueline Brun, Food Science, is Jan. 22 at 9 a.m. in the Guelph Food Technology Centre. The thesis is "The Competitive Adsorption of Milk Proteins in Heated Oil-in-Water Emulsions." The adviser is Prof. Douglas Dalgleish.

Interested members of the University community are invited to attend.

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## ARBORETUM

Naturalist Chris Earley will lead night stalker's owl prowls Jan. 23 and 24 at 7 p.m. from the nature centre. Cost of each session is \$9 for adults, \$4.50 for children or \$25 for a family of four. Registration and payment are required by Jan. 16. To register, call Ext. 4110.

On Jan. 25, the Arboretum hosts an afternoon of winter fun from 1 to 4 p.m. Several winter activities will be available to try, including tracking and animal signs, winter insect wonders and snowshoeing. Admission is free. For more information, call Ext. 2113.

A tap-dancing quartet from William Orlowski & Co. presents the children's show *Oliver Button Is a Sissy* Feb. 4 at 6:30 p.m. at the Arboretum Centre. Tickets are \$5. For information, call Ext. 2113.

## ART CENTRE

Two new exhibitions open in the Macdonald Stewart Art Centre in January. "David Rokeby: Giver of Names" features works by David Rokeby, a leader in artistic technological innovation. The show, which includes the world premiere of a new work, runs Jan. 22 to March 22, with an opening reception slated for Jan. 22 at 7:30 p.m. On Jan. 29 at 4 p.m., Rokeby will discuss his work. Also opening Jan. 22 is "A Sense of Time and Place," featuring historical and contemporary works from U of G's permanent collection. Exhibition curator Gregory Klages will give a gallery talk Feb. 26 at 4 p.m. The show runs until July 26.

## CONCERTS

The School of Fine Art and Music kicks off its winter Thursdays at Noon concert series Jan. 15 with Guelph graduate Oscar Cano. The pianist will perform works by Berg, Moncayo, Márquez and Piazzola. On Jan. 22, soprano Mary Enid Haines and Watson Buchanan of McMaster University present "The Life of Robbie Burns" in poetry, prose, music and song. The Jan. 29 concert features Paula Elliott on flute and Sylvia Hunter on piano.

Children's storyteller Robert Munsch will perform at three benefit concerts Jan. 18 for the U of G Child-Care and Learning Centre. Performances run at noon, 2 and 4 p.m. in War Memorial Hall. Tickets are \$9 and are available at the Child-Care Centre, the Bookshelf, The Corner at Stone Road Mall and Looney Tunes

downtown and through the River Run Centre box office at 763-3000.

The University Centre presents Holly Cole Feb. 4 at 9 p.m. at War Memorial Hall. Tickets are \$29 in advance, \$30 at the door, and are available at the UC box office.

Susan Aglukark performs Feb. 14 at 8 p.m. at the River Run Centre. Tickets are \$25 and \$27. For ticket information, call 763-3000.

## CONFERENCES

The School of Landscape Architecture hosts the conference "Women in the Profession: A 10-Year Retrospective on the Profession of Landscape Architecture and Its Practitioners" Jan. 16 from 1 to 5 p.m. in the Landscape Architecture Building. The afternoon will feature presentations, informal focus groups and a plenary session.

The 17th annual Organic Agriculture Conference runs Jan. 30 and 31 on campus. Cost is \$45 general, \$10 for students. A public forum and panel discussion on "The Agribusiness Challenge to Organic Agriculture" is slated for Jan. 30 at 7 p.m. in UC 103. Admission to the forum is a cash or food donation to the Guelph Food Bank. For more information, call Tomàs Nimmo at 705-444-0380 or send e-mail to organix@georgian.net.

## LECTURES

The School of Fine Art and Music presents Toronto artist Brian Boigon, head of the Art Gallery of Ontario's new media centre, Jan. 21 at 12:30 p.m. in Zavitz 320. His topic is "Down the Hole: A Look at New Entertainment Models."

Third Age Learning—Guelph's winter lecture series for retired people continues Jan. 28 with a discussion of Shakespeare by Prof. Fred Vaughan, Political Science, at 10 a.m. and a look at "High Renaissance of Music" with Gordon Greene at 1:30 p.m. Lectures are at the Arboretum Centre.

## NOTICES

An information meeting for U of G's 1999 Latin America semester will be held Jan. 15 at 5 p.m. in OVC 1713. Deadline for applications is Feb. 9. For more information, call Prof. David Walner-Toews, Population Medicine, at Ext. 4745 or send e-mail to dwalner-to@ovcnr.uoguelph.ca.

The Association of Universities and Colleges of Canada will gain hold regional workshops on enhancing

Canadian university international development efforts. The Ontario workshop is Jan. 29 to 31 at Ryerson Polytechnic University. For more information, visit the InfoCentre at the Centre for International Programs in Day Hall.

The School of Languages and Literatures will host an evening for the Nice program Jan. 21 at 7 p.m. at La Maison française in Lennox-Addington. The evening will be hosted in French. For more details, call Ext. 3884.

The Stress Management and High Performance Clinic is offering instruction in a variety of techniques for muscular relaxation, anxiety reduction and worry control this semester. Classes run at noon, 5:30 or 8 p.m. The 12-session programs run Tuesdays and Thursdays, beginning Jan. 27. Cost is \$120 general, \$40 for U of G students and \$60 for members of the U of G Staff Association. Registration forms are available at the Connection Desk on UC Level 3. For more information, leave a message at Ext. 2662 or visit the Web site [www.uoguelph/~somers](http://www.uoguelph/~somers).

The International Consortium for Educational Development in Higher Education will hold its second international conference April 19 to 22 in Austin, Texas. Hosted by the Centre for Teaching Effectiveness at the University of Texas at Austin, the conference will focus on "Supporting Educational, Faculty and TA Development Within Departments and Disciplines." For more information, check out the Web site <http://iced.ced.utexas.edu:8001> or contact Karron Lewis at 512-232-1776 or [kglewis@mail.utexas.edu](mailto:kglewis@mail.utexas.edu).

The Guelph University Polytechnic Society for people interested in reading, writing, photography and exploration meets every other Tuesday at 5:30 p.m. in MacKinnon 314. The next meeting is Jan. 27. For more information, send e-mail to [ncorbett@uoguelph.ca](mailto:ncorbett@uoguelph.ca), [nicola@snowhite.cis.uoguelph.ca](mailto:nicola@snowhite.cis.uoguelph.ca) or [gordonj@uoguelph.ca](mailto:gordonj@uoguelph.ca).

## SEMINARS

Computing and Communications Services is offering seminars for all members of the University community in January and February. The topics are "Effective Web Pages with Netscape Composer," "Effective Web Pages: Intermediate Page Creation and Site Management" and "SAS Statistical Program." For more information on time, location and registration, see the CCS Web pages at <http://www.uoguelph.ca/CCS/>.

The Department of Economics presents John Rowe of the University of Calgary discussing "Technological Advances in Recovery Methods and Efficient Allocation of a Non-Renewable Resource" Jan. 16 at 3:30 p.m. in MacKinnon 235.

The Department of Physics presents McGill University physiologist Leon Glass Jan. 20 at 4 p.m. in MacNaughton 113. His topic is "Universality, Cardiac Arrhythmia and Sudden Death." On Jan. 27, Wolfgang Ketterle of MIT looks at "Matter Made of Matter Waves: Bose-Einstein Condensation and the Atom Laser."

The Plant Biology Council winter seminar series runs Wednesdays at 3:15 p.m. On Jan. 21, Andy Reynolds of Brook University discusses "Flavor Development in the Vineyard: Impact of Viticultural Practices on Grape and Wine Monoterpene Aroma Compounds Erodise" in Axelrod 259. On Jan. 30, Charles Benbrook of Benbrook Consultant Services Inc. asks "Is Agricultural Biotechnology Ready for Prime Time?" in Crop Science 117.

## WORKSHOPS

The School of Fine Art and Music will offer a vocal master class with mezzo-soprano Catherine Robbin and accompanist Mary Louise Vosburgh Jan. 24 from 10 a.m. to 12:30 p.m. and 1:30 to 4:30 p.m. in MacKinnon 107. Cost is \$15 for performers and \$3 for auditors. Students wishing to perform should call Theresa Thibodeau at 822-1732. The school is also staging a demonstration and workshop on band instruments called "Knowing What's Available to the Serious Music Student and Professional" Jan. 20 at 12:30 p.m. in MacKinnon 103. This session is open to the public.

## COMMUNITY EVENTS

Mark Kingwell, a Toronto-based political and cultural theorist, author and critic, will speak Jan. 15 at 7:30 p.m. at Chalmers United Church. His topic is "(Stop) Making Sense of the Millennium: Politics and Culture at the End." Tickets are \$5.

The Trillium Children's School presents "Children Are Not Tiny Adults" with Connie White Jan. 28 at 7:30 p.m. at the school in Westwood United Church.

The Canadian Federation of University Women (CFUW) will meet Jan. 27 at 7:30 p.m. at the Guelph Steelworkers Centre, 89 Dawson Rd. Guest speaker Alex Mustakas, artis-

tic and managing director of the Drayton Festival Theatre, will discuss "The Drayton Festival Theatre Experience." This meeting is open to the public. For CFUW membership information, call Joyce George at 865-9094.

The Multiple Sclerosis Society support group will meet Jan. 20 at 7:30 p.m. at 238 Willow Rd. For more information, call Jolyne Neil at 821-6309. The MS Society also runs a swim group Wednesdays at 10 a.m. at the Holiday Inn Pool.

The Central Orchid Society meets Jan. 26 at 7 p.m. in Waterloo at the Rink in the Park on Seagram Drive. The evening will feature a slide show on "Super Spider Orchids: Breeding with Brassias." For more information, call Richard Côté at Ext. 4375.

The Canadian Mental Health Association presents Michelle Wright in concert Feb. 5 at 8 p.m. at Guelph Memorial Gardens. Tickets are \$40 and \$29 and are available at the U of G box office or by calling 824-5970, Ext. 307.

The Guelph Arts Council will hold its annual Fête Romantique draw Jan. 26 at 4:30 p.m. at the council's office at 147 Wyndham St. N. Grand prize is a gourmet dinner for six. Tickets are available at the GAC office, Guelph Artisans Store and the Framing and Art Centre.

The Rotary Club of Guelph's 1997/98 travel program continues Jan. 14 with a presentation on Alaska by Fran Reidelberger and Feb. 4 with "Singapore to Bali" by Pat McCarrier. The talks begin at 8 p.m. at E.L. Fox Auditorium. Tickets are \$5 at the door.

The YMCA-YWCA of Guelph presents an eight-week series on "Anger Management for Women" Thursdays at 7 p.m. and a three-part series for separating couples on "Children in the Middle" Thursdays at 7:30 p.m. Both sessions begin Jan. 29 at the Kensington "Y" Centre. Cost of each series is \$65. For more information or to register, call 836-2091.

The Arkell Schoolhouse Gallery presents a strings concert Jan. 16 at 8 p.m. The program will include works by Mozart and Tchaikovsky. Tickets are \$20. For reservations, call 763-7528.

The Canadian Wildflower Society meets Jan. 21 at 7:30 p.m. in Axelrod 117. Ecologist Dan Kraus of Limestone Creek Nurseries discusses "Naturalizing with Native Plants in Your Own Backyard." Everyone is welcome.

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### SWEET ON TOMATOES

Food scientists John Shi, left, and Marc Le Maguer serve up a tray of tomatoes preserved by a new sugar-based food dehydration technique they're developing. See story on page 5. PHOTO BY MARTIN SCHWALBE

## Putting the Byte on the Year 2000

*U of G committee takes steps to avoid computer crash of the century*

**N**O ONE REALLY KNOWS what the turn of the century will bring, but the millennium bug has computer specialists around the world planning how they'll spend New Year's Eve 1999.

According to the worst-case scenario, when the year 2000 (Y2K) ticks around, date-sensitive computer systems not programmed to enter the new millennium could completely shut down, including air-traffic control systems, medical equipment, fax machines, telephones and automatic banking machines. Many large organizations have already spent several years and millions of dollars ensuring that their systems are Y2K-compatible.

Doug Blain, manager of U of G's Computer Centre in Computing and Communications Services and chair of the campus Year 2000 Committee, has been studying the implications of Y2K since 1995. In 1997, at the request of provost Iain Campbell, chair of the Information Technology Strategy Committee, Blain was asked to chair a committee made up of members from across campus to help him analyse the impact of Y2K

on U of G systems.

The arrival of Y2K poses a number of significant challenges for computing systems at Guelph, as well as for the processes and practices that depend on them, says Blain. That's because in the early days of computing, to save programming space, only a two-digit field was used to indicate the year. Older mainframe systems do not recognize a four-digit year.

"This didn't seem to be a problem in the 1960s when many of these systems were first built, but on New Year's Day 2000, without a millennium solution, computers could turn over to '00" and assume that it's 1900," says Blain. "The implications for computing systems are enormous."

He's confident, however, that Guelph will ring in the new century with all its systems intact.

Blain and his Year 2000 Committee have been conducting inventories to assess the Y2K compatibility of campus systems. Ron Elmslie, director of CCS, is assessing the Y2K impact on personal computers throughout the University, the cen-

tralized facilities that host applications such as financial, registrarial and the Web, as well as network services and telephone systems. Garry Round, executive director of facilities and hospitality services, is assessing heating and cooling systems, power, elevator controls, alarms, lighting and other systems that support buildings and services.

Blain notes that, unlike large financial institutions such as banks, U of G does not depend on large COBOL programs and has been moving away from mainframes in recent years. Major critical systems such as student information, human resources and financial have been replaced — or are being replaced — to provide the functionality required, as well as being Y2K-compliant. Guelph has also adopted the strategy of buying packages rather than writing its own programs, he says.

Over the next 18 months, the Year 2000 Committee will advise faculty, staff and students of progress and ongoing issues through columns in *At Guelph* and a Y2K Web site. For more information about the project, call Blain at Ext. 6475.

## Historic Changes Steer Guelph Towards Future

*Restructuring marks most significant change in U of G's college structure in almost 30 years*

**S**ENATE MADE HISTORY this month. At its Jan. 13 meeting, the academic governing body overwhelmingly approved the amalgamation of the College of Family and Consumer Studies and College of Social Science into a new College of Social and Applied Human Sciences. The move, which takes effect May 1, 1998, marks the most significant change in Guelph's college structure since 1970, when Wellington College was dismantled and several new colleges, including CSS, were created.

FACS and CSS weren't the only colleges adding a chapter to the history books at Senate — OAC wrote a few new pages of its own. Effective Feb. 1, the Department of Crop Science, the Department of Horticultural Science and the Horticultural Research Institute of Ontario will merge to become the Department of Plant Agriculture. That day will also mark the formation of a College Faculty of Environmental Design and Rural Development that amalgamates three schools — Rural Planning and Development, Landscape Architecture and Rural Extension Studies. (See stories on page 2.)

Hand in hand with the decision to create the College of Social and Applied Human Sciences, senators approved the establishment of a University Faculty of Management. It will bring together the management activities in hotel and food administration, housing and real estate management, management economics in industry and finance, marketing management and agricultural business in a cross-University collaboration for education and research.

President Mordechai Rozanski lauded senators for the thoughtful decision making that led up to these historic changes. "There's something remarkable about this university that distinguishes it from any other in the way things are done here," he said. "We may take longer, but we study the issues harder, consult extensively and get more accomplished. I am very proud to be a member of this Senate and University."

The changes flow in part from the recommendations outlined in U of G's strategic plan in 1995 and build on similar restructuring in other colleges — three mergers last year in the College of Arts and two earlier mergers in OVC and CBS.

"The primary goal of this reshaping is to establish structures and programs for the long term that will attract strong enrolment, quality faculty, new opportunities and increasing research dollars," Rozanski told *At Guelph*. "It is also important, after the sweeping government cuts and faculty reductions of the 1990s, to minimize the resources drawn off for academic administration and release more faculty to the classroom and lab, where they're needed."

Provost Iain Campbell notes that, through this reshaping, "Guelph has effectively reduced the number of departments by eight, inventing exciting new structures — schools and faculties — in the process, and has established a new college of considerable potential. And this has been done in a remarkably positive spirit. We can congratulate ourselves. We have shown government and taxpayers that we have the courage and the imagination to reconfigure. We don't just debate, we act. We have demonstrated that we merit the reinvestment that the government has inexplicably delayed."

The proposal to amalgamate FACS and CSS, presented to Senate by its Committee on University Planning (SCUP), was the result of 16 months of discussions with faculty, staff, students and alumni in FACS and CSS. The discussion began in 1996 when Rozanski and Campbell challenged the two colleges to redefine themselves to meet the needs of a radically changing world in a new century.

A number of options were considered, but it was amalgamation that emerged as the most viable route to the future, said FACS dean Michael Nightingale, who, along with CSS dean David Knight, rose at Senate to offer strong support for the SCUP proposal.

The deans described for senators the lengthy and wide-ranging consultation process that took place in each of their colleges. This included many meetings of faculty, staff, students and alumni, as well as several rounds of review and revision of a document prepared by department chairs in the joint dean's councils. "We had tremendous input from all segments of the two communities," Knight said.

*Continued on page 3*



# Plant Department Takes Root in OAC

*Collaborative teaching, research to bloom under new partnership of horticultural science, crop science, HRIO*

**A** VITAL PARTNERSHIP will be created as the departments of Horticultural Science and Crop Science and the Horticultural Research Institute of Ontario (HRIO) become known as the Department of Plant Agriculture Feb. 1.

Designed to strengthen the existing disciplines and provide new opportunities for co-operation in research and teaching, the department will have four divisions — horticultural science, crop science, plant biotechnology and the HRIO (part of the University's enhanced partnership with the Ontario Ministry of Agriculture, Food and Rural Affairs).

"By creating a department with complementary interests, we can get more people working together," says Prof. Tom Michaels, acting dean of OAC. "The amalgamation means there will be more collaborative research in the future. It's an exciting time, and I'd like us to build on camaraderie and increase the synergy."

Michael says the mission of the new department — "discovery, application and instruction focused on improving crop and horticultural plant agriculture" — is critical to its success. In particular, the new

division of plant biotechnology, which has broad applications in the crop and horticultural sciences, will benefit from a collaborative approach.

"The amalgamation will increase the visibility both on and off campus of plant biotechnology as an academic discipline and as a research strength within the University," he says.

the Department of Crop Science.

"It represents a great opportunity for horticulture," says Prof. Alan Sullivan, chair of the Department of Horticultural Science. "It's going to bring us closer to the HRIO and create a good blend of applied and basic research. It will help co-ordinate horticultural research across Ontario."

"The HRIO's traditional role of applied research and services will be

culture will be governed by a chair and advisory executive committee. Relocation of departmental members to a renovated and expanded facility will occur in the near future. Faculty and staff on campus will be housed in a connected Crop Science/Richards Building with renovated and expanded research facilities and in the Bovey complex. Off campus, existing HRIO facilities will

exposed to a broader range of applied and basic research.

Hume adds that the new department is "no small potatoes." There are currently 48 faculty, 90 graduate students, a total of more than 250 employees, more than \$10 million a year in research grants and contracts, research at six different stations and a responsibility to provide leadership in an industry in Ontario worth more than \$7 billion annually.

Eady notes that HRIO research scientists and Guelph faculty have enjoyed an ongoing relationship for many years and that a number of graduate students have done research at HRIO facilities over the years. "The new department will result in an increase in graduate student activity at HRIO facilities, and this is one of the many positive outcomes that we anticipate," he says.

The presence of the HRIO in the department will increase opportunities for collaborative research on specific commodity crops. The HRIO station at Vineland has access to the tender fruit-growing area, and the muck research station at Bradford will provide an opportunity to work on muck soils and crops.

BY MARGARET BOYD

**"BY CREATING A DEPARTMENT WITH COMPLEMENTARY INTERESTS, WE CAN GET MORE PEOPLE WORKING TOGETHER. THE AMALGAMATION MEANS THERE WILL BE MORE COLLABORATIVE RESEARCH IN THE FUTURE. IT'S AN EXCITING TIME, AND I'D LIKE US TO BUILD ON CAMARADERIE AND INCREASE THE SYNERGY."**

The new department's emphasis on collaboration is extolled by both the existing department chairs and the HRIO director.

"The strongest reason for creating the merger was to bring together a critical mass of plant scientists, particularly in biotechnology, so they could work together, share facilities, share expensive equipment, share ideas and create improvements that all of plant agriculture can use," says Prof. Dave Hume, present chair of

strengthened and enhanced through research scientists being faculty members in the new department," says HRIO director Frank Eady. "This will provide opportunities, within one departmental structure, to provide research that seeks, identifies, develops and applies solutions that will enable Ontario's horticulture industry to remain competitive and realize opportunities in world markets."

The Department of Plant Agri-

remain. Land resource science faculty will relocate from the Richards Building to the Bovey Building and Graham Hall with renovated and expanded teaching facilities to replace those lost in their relocation.

Sullivan notes that the amalgamation will provide positive opportunities for both undergraduate and graduate students. Undergraduates will benefit from the increased flexibility in choosing an area of study, and graduate students will be

## The Ties That Bind

*New college faculty draws on common interests in environmental design and rural development*

**T**HE NEW College Faculty of Environmental Design and Rural Development, to be officially recognized Feb. 1, will bring together three academic units at U of G with similar interests.

The amalgamation of the University School of Rural Planning and Development (to become the School of Rural Planning and Development), the School of Landscape Architecture and the Department of Rural Extension Studies (to become the School of Rural Extension Studies) into one new college faculty will reduce administrative costs, improve efficiency and provide collaborative opportunities for education and research.

The new college faculty will be governed by an executive council composed of the directors of the three schools and an executive director, to be selected from the current directors. The executive director will report to OAC dean Rob McLaughlin.

Two of the schools — Rural Planning and Development and Landscape Architecture — are accredited professional programs; the School of Rural Extension Studies is seeking formal accreditation from the Canadian Society of Extension.

Prof. Jim Taylor, director of landscape architecture, says the restructuring is "very opportune" because it positions University offerings in

planning, landscape architecture and related community development areas within a faculty structure. "This is consistent with other universities in Canada, including Calgary, Waterloo and York, and will be beneficial in attracting students and research support. The University of Toronto is also developing a proposal to form a faculty including architecture, landscape architecture and urban design."

Taylor believes the amalgamation strengthens the schools in a number of ways. "It will provide a focus area for rural communities within OAC and it will increase collaboration among the faculty and graduate students."

Prof. John FitzGibbon, director

of rural planning and development, notes that the three academic units have a strong mandate for outreach to the community and for applied research. "There will be a lot more joint proposals regarding research and community outreach," he says.

The next step is to formalize a collaborative approach, says Prof. Doug Pletsch, director of rural extension studies. "I see it as the real reason for coming together."

Geographically, the schools of Rural Planning and Development and Rural Extension Studies are now located in Johnston Hall. There are no plans to move the School of Landscape Architecture from its current location.



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## IN MEMORIAM

Retired U of G Spanish studies professor Miriam Adelstein died Dec. 20. She taught Spanish language and South American literature in the former Department of Languages and Literatures from 1970 until her retirement in April 1992. She is survived by her husband, Ansel, and two daughters, Ana and Ricky.

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## ALUMNI NOMINEES SOUGHT FOR AWARDS

The U of G Alumni Association invites nominations for its 1998 awards of excellence. The Alumnus of Honor award recognizes a graduate who has brought great honor to the University through professional, community and personal endeavors. The Alumni Medal of Achievement honors a graduate of the last 15 years who has achieved excellence through contributions to country, community, profession or the world of arts and letters. The Alumni Volunteer Award goes to a graduate who has demonstrated loyalty and commitment to Guelph through volunteer work. The nomination deadline is Feb. 27. For more information, call Carla Bradshaw at Alumni House, Ext. 6533.

## CBS TO HONOR TEACHING EXCELLENCE

The College of Biological Science seeks nominations for its annual Award for Excellence in Teaching. Individuals or groups may be nominated for outstanding performance in such areas as undergraduate classroom instruction, graduate teaching, curriculum development and development of innovative teaching methods. Nomination forms are available from department chairs in CBS and should be submitted to dean Robert Sheath by the first week of March.

## B OF G SEEKS STUDENT MEMBERS FOR 1998/99

Board of Governors is calling for nominations to elect one graduate student and two undergraduates to the board for a one-year term that runs from July 1, 1998, to June 30, 1999. All full- and part-time students are eligible, provided they are currently registered and will be registered for two of three semesters during the term of office. Nominations must be submitted by Feb. 13 at 4 p.m. to the Board Secretariat on Level 4 of the University Centre. Election of the undergraduate students will be held in conjunction with the Central Student Association elections March 2 to 4. The graduate student will be elected by mail ballot. Nomination forms are available from the offices of college deans, the Connection Desk, Info Desk, Graduate Students' Association and Board Secretariat.

## THREE NAMED TO BOARD

The George Morris Centre has appointed three new members to its board of directors. They are Ray Price, president of Trochu Meats Ltd., Acme, Alta.; Paul Sneddon, president and CEO of H.J. Heinz Company of Canada Ltd., Toronto; and John Schroeder, president of Valleybrook Gardens Ltd., Abbotsford, B.C.

# FACS, CSS Join Forces

*Amalgamation positions new college to become powerful academic force*

**C**HANGE IS NOTHING NEW for the College of Family and Consumer Studies and the College of Social Science. They both have a history of change leading to progress.

The programs and academic units in FACS, for example, are much different from those established at the Macdonald Institute in 1903, when the focus was on household science, or in 1969, when the institute evolved into FACS. Likewise, CSS grew out of the former Wellington College, which itself was established by drawing faculty and departments from the founding colleges.

President Mordechai Rozanski acknowledges that change of this magnitude requires a true team effort, and he hails the efforts leading up to the amalgamation. "I congratulate everyone involved — deans, chairs, faculty, staff, students, alumni and the provost — for the leadership and innovation they have demonstrated."

When FACS and CSS amalgamate this May 1 to become the College of Social and Applied Human Sciences, it will mark the end of an era at Guelph, but more important, it will mark a beginning, says Prof. Iain Campbell, provost and vice-president (academic). "Everything up to now has been before the beginning. The new college will create one stronger unit that can build on the scholarship and energy of both its partners."

Campbell says the move is a means of positioning the University and building on its strengths for the long term. "We currently have a public image in which agri-food, veterinary medicine and our very strong science programs play a large part. We also have great strength in the behavioral and social sciences, but they've been in two colleges and therefore divided. It was time to

remove the walls between them."

With the walls gone, "we now have a new entity that spans an impressive range of scholarship in the human and social sciences and their applications," he says. "There is a wide range of possibilities for collaboration within the colleges in teaching and research and significant potential to attract new research funding through the development of ideas from people drawn from the various disciplines. There is also a major possibility of developing innovative teaching ventures. This will give the college the potential to become a powerful academic force and a major player in shaping public policy and services in Ontario and Canada."

At the same time, the amalgamation will streamline administration of the two colleges, resulting in budget savings down the road and reducing the diversion of faculty energy into committee work and administration, says Campbell. Most important, it will provide an innovative academic platform to attract new funding and support for its teaching, research and applied programs, he says.

CSS dean David Knight and FACS dean Michael Nightingale share Campbell's enthusiasm about the potential of the new college. Says Knight: "It gives U of G a critical mass of faculty and students working in the human sciences with a very strong tradition for excellent basic and applied research and service to society." Adds Nightingale: "What I see is a better future for the things FACS is concerned with inside the new college structure than with the status quo."

FACS now offers interdisciplinary programs in health, family studies, hotel and food administration and business. Nightingale, who will serve as interim dean of the new college

until a new dean is chosen, says there are obvious benefits to be gained from a closer link with the basic disciplines of sociology and anthropology, psychology, economics, geography, political science and international development studies.

"We've seen closer links developing in these fields outside the University," he says. "Industry and government, for example, are both recognizing that social, economic and political issues have to be dealt with together if we are to find the solutions that will lead to improvements in society. As academics, we should be on the leading edge of such changes."

All academic units and existing degree programs will continue in their present form in the new college, but removing the administrative walls will increase student mobility and make interdisciplinary study much easier, says Knight. Increased collaboration among faculty will also enhance the quality of teaching. It may ultimately generate new programs that will be more responsive to societal needs and better prepare students for the workplace, he says.

Campbell pays tribute to Nightingale and Knight for their roles in the college restructuring process. "It's a remarkable aspect of Guelph that two successful deans were willing to work through a process at the end of which their present positions would no longer exist. I can't commend them enough for their commitment to the University."

Campbell also has words of praise for SCUP. "Over the last couple of years, SCUP has played a major role in the development of all restructuring proposals and has displayed creativity and flexibility throughout. The committee deserves strong commendation from the University."

## New College to Build on Heritage, Existing Success

*Continued from page 1*

That input did, of course, include some opposition to amalgamation from both sides. In FACS, which has three academic units and 45 faculty, compared with five departments and 92 faculty in CSS, "there was a natural anxiety about joining with a larger organization, a fear of losing some of our traditions and cultures," said Nightingale. During discussions, however, it became apparent "that we had assumed things about each other that just weren't true. The differences between us were far less than we imagined." And the opportunities for collaboration were even greater than envisioned.

The final proposal that went to Senate was a complete rewrite of earlier documents, taking into account the extensive feedback from the University community. In the proposal, SCUP says the creation of a new college is based on a "common desire to develop a strong, vibrant and progressive academic community that is distinctive in its scope and responsive to a range of pressing societal needs." Its mission is to stake out a leadership role in Canada as an innovative and unique college.

Building on the strong heritage, traditions and existing success of individual programs and units, the new college will create a synergy of collaborative and interdisciplinary research and teaching in the social, applied human and management sciences, and will open up many new learning opportunities for students, said SCUP. The college will provide contemporary programs designed to improve the health, economic and social well-being of individuals, families, communities and organizations and provide a better understanding of human behavior. This will allow the University to contribute to public policy and service in meaningful ways, SCUP said.

Prof. Constance Rooke, associate vice-president (academic), told Senate she was excited about the impact the new college and increased collaboration among its disciplines could have on society. "We have a number of huge social problems that have not been adequately addressed by the academy," she said. "There is a tremendous opportunity for some very positive change."

Rooke was one of a number of

senators who stood at Senate to throw their support behind the proposal. Prof. Michael Matthews, chair of the Department of Psychology, noted that college structures tend to create fences rather than bridges.

"This grouping brings together people more alike than any others on campus, people with similar research needs, methodologies and research goals," he said. "It will allow us to refocus in a more meaningful way to deliver the things we're supposed to be delivering."

The biggest bonus, he said, is the external visibility the amalgamation will bring to the new college. "It will add a new dimension to our respect."

Alumni senator Harold Whiteside, who served as president of the U of G Alumni Association last year, said the amalgamation proposal had at first raised concerns among Mac-FACS and CSS graduates, who currently represent more than 30 per cent of living alumni. "They wondered if they were losing their past," he said. "But once the discussions moved from history and began looking at the present and future opportunities, a recognition of the realities

## PEOPLE

### WRITER-IN-RESIDENCE WINS PRIZE FOR NOVEL

Renowned Canadian novelist Austin Clarke, writer-in-residence in Guelph's School of Literatures and Performance Studies in English since September, is the first recipient of the Rogers Communication Writer's Trust Fiction Prize. Clarke received the \$10,000 prize for his most recent novel, *The Origin of Waves*, which judges called "a hypnotic story of friendship and love."

### PSYCHOLOGIST HOLDS VISITING PROFESSORSHIP

Professor emeritus John Hundleby, Psychology, held the 1997 Stanley Knowles Distinguished Visiting Professorship at Brandon University during the fall semester. While there, he gave public lectures on "The Development of Delinquency: Long-Term Studies on the Prediction of Anti-Social Careers," "Seeing is Believing: Body Image, Size Estimation and Eating Disorders" and "The 'Turnarounds': Adolescents at Risk Who Leave an Anti-Social Lifestyle."

### CBS HONORS STUDENTS

The College of Biological Science recently announced the recipients of its annual graduate scholarships. John Neville received the Roy Anderson Award, Elgin Card Award and Arthur Richmond Memorial Scholarship. The Richmond Scholarship was also awarded to Tracy Burton. Winner of the Arthur D. Latornell Award was Eden Thurston. The Norman James Award went to Andrea Cox. Alison Sherwood received the Isaac Walton Fly Fishing Award.

and the potential for the two colleges emerged. Senate's alumni caucus wholeheartedly supports the proposal."

Two senators — Prof. Bill Christian, Political Science, and Prof. John Liefeld, Consumer Studies — expressed opposition to both the amalgamation proposal and the consultation process. Liefeld said the amalgamation would lessen the distinctiveness of the University and would not create the synergies SCUP expected to emerge. "You can't create synergies; people create synergies," he said. "Structure has nothing to do with synergy."

Prof. Leon Kuczynski, Family Studies, asked for assurances that the amalgamation would not result "in a massive college with continuing non-interaction between departments. We need to put some process into place beyond the abstract; otherwise the new college will pay lip-service to synergy and go about its habitual ways."

Campbell immediately rose to say: "I will make the commitment now. We must be vigilant in making sure that this is done."



# ONTARIO UNIVERSITIES MAKE GOOD CASE FOR EXTRA FUNDING

*"If knowledge is the economic battleground of the 21st century, as it surely is, then Ontario has unilaterally disarmed itself."*

BY IAN URQUHART

*Editor's note: This opinion piece by Toronto Star provincial affairs columnist Ian Urquhart appeared in the Jan. 13 issue of The Star. It is reprinted with permission from The Toronto Star Syndicate.*

**T**HIS IS THE SEASON during which various institutions that depend on public funding — hospitals, schools, municipalities and so on — press the provincial government for more money.

The budget is still four months away, but decisions on discretionary spending will be made long before then, so the lobbying has already begun.

Among those applying the pressure are Ontario's 17 universities. They make a very good case.

By any measure, our universities are underfunded, particularly since the Tories took office in 1995 and proceeded to cut \$400 million from university operating grants. Ontario's per-capita expenditure on university education is now the lowest in Canada.

Comparisons with the United States are even more stark. Take, for example, the University of Toronto, our leading postsecondary institution. A comparison with two dozen of the top-ranked public universities in the United States shows that U of T's per-student expenditure is second lowest, ahead of only the University of Nebraska. U of T is more than \$20,000 US per student behind UCLA and Michigan.

If knowledge is the economic battleground of the 21st century, as it surely is, then Ontario has unilaterally disarmed itself.

Meanwhile, tuition fees have been rising sharply. While revenues from the fees have partially offset the cutback in the grants, the total amount spent per student is still on the decline.

"It's just not fair to ask our students to pay more for less," said U of T president Rob Prichard in a recent interview.

As chair of the Council of Ontario Universities, Prichard is leading the campaign for restoration of the government grants to get Ontario at least back to the national average in per-capita expenditures on universities. "And it's not that expensive," he said. "It's amazing — \$500 million gets it."

Put Prichard is politically astute enough to recognize that universities can't just demand a no-strings-attached \$500-million increase in their operating grant. In this fiscally conservative world, said Prichard, "they (the government) are going to want to do it strategically and they're going to want to see, if we invest \$500 million in this, what do we get?"

Accordingly, the universities are proposing a series of spe-

cific measures that would bring immediate results.

It is known as "the Queen's proposal" because it is contained in a Dec. 16 letter to the government from Queen's University principal Bill Leggett. It proposes new spending on recruitment of outstanding faculty; renovation and repair of existing facilities; rewards for outstanding research performance; support for information technology, including the digitalization of university libraries; and expansion of existing programs in subject areas where universities can't keep up with the demand.

(On this last point, Prichard gave an example. Demand has so outstripped supply for electrical engineering at U of T that it now takes a 91-per-cent average to get into the program. Last year, he fielded a complaint from an MPP whose daughter was denied entry with an 89-per-cent average.)

Prichard and several other university heads pitched the Queen's proposal to Education Minister Dave Johnson at a meeting at Queen's Park Dec. 22. Johnson was attentive but non-committal. They agreed to meet again soon.

What gives the universities reason to hope is Premier Mike Harris's speech Nov. 19 to a conference on the future of Ontario's universities.



At the time the speech was delivered, it was widely deplored — for the wrong reasons. In an early draft, which was circulated among the press, Harris questioned the relevancy of university education in general and, in particular, subjects like geography and sociology. Press accounts of the speech focused on this line and prompted accusations of philistinism to be aimed at Harris.

In fact, Harris never actually uttered those words in the speech he gave to the conference. What he did say is that Ontario's universities "must be among the best in the world." And he defended theoretical research as "absolutely crucial to our ability to lead and excel in the race for the new ideas of the next century."

The university presidents liked the speech so much that Leggett quoted liberally from it in his letter. It was a not-so-subtle way of increasing the pressure for more money.

While the universities may have Harris on their side, at least rhetorically, they do not have the sort of access to the media that municipalities enjoy. (See Mel Lastman.)

But they do have other powerful allies, including big business, which is usually leery of proposals to increase government spending, but has a soft spot for universities. Indeed, the likes of multimillionaire financier Hal Jackman, Scotiabank chair Peter Godsoe and Royal Bank chair John Cleghorn are all chancellors of universities (respectively, U of T, Western and Wilfrid Laurier).

The chancellors are currently drafting a joint letter to the premier that is said to endorse a hike in funding.

Getting in the universities' way, however, is their own disunity. They are roughly divided into two groups — the elite six (U of T, Queen's, Western, McMaster, Waterloo and Guelph) and the remaining 11. The two sides are intensely suspicious of each other and often lobby at cross-purposes, with the result that nobody gets anything.

But if they stick together, the universities may get somewhere this winter. Their timing is felicitous as the government is looking for ways to soften its image.

The government's new mission statement, expressed by Harris in his Nov. 19 speech, is "to make our province the best jurisdiction in North America to live, work, invest and raise a family." What better way to start than by investing in our universities?



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# THE ICE STORM COMETH

Warm hearts and kind deeds help to melt the adversity at Kemptville and Alfred colleges

BY ALEXANDER WOOLEY

This issue's profile is not of a person, but a newsmaker of a different sort -- the ice storms of early January.

**T**HE ICE STORMS of '98 may be over, but for the people at U of G's partner colleges in eastern Ontario — Kemptville and Alfred — their experiences are frozen in time.

At both campuses, the most visible scars of the disaster are the destroyed trees. "After the initial ice storms, it looked like Bosnia without the bullets," says Bill Curnoe, director of Kemptville. "Then when the soldiers arrived to help, it really did look like Bosnia."

Curnoe likens it to landscape scenes from the First World War. "The trees looked as if they had been shelled by artillery. These weren't little branches broken off; it was good-sized trees split at the trunk."

Every member of the college has a story to tell, says associate director Ben Hawkins. One staff member had a house destroyed. Some students were still missing classes late last week to stay home and help milk the cows because their family farms did not yet have power. The college's own farm wasn't restored until Jan. 21 — a full 15 days after power was lost.

Moving east, the storm took a similar toll at Alfred College 90 kilometres away. Alfred acting director Jocelyne Sarault directed things from her rural home, where she still had a working phone, and notified staff, faculty and students of the college's closure, with the help of colleagues living near the college.

U of G set up an ice-storm telephone message hotline, which Sarault updated daily. At its peak, the hotline was receiving more than 100 calls a day from Alfred and Kemptville's students, staff, faculty and parents.

Meanwhile, Sarault was facing her own challenges at home. To obtain water, her husband had to break a hole in the ice at the bottom of their well and use a bucket to haul it up. A fireplace provided them with heat, but in their open-concept house, the temperature fell to 40 F anyway.

They improvised. Turned into a pioneering family overnight, Sarault and her husband used a plastic canopy that normally covers their picnic table to build a tent around the fireplace in the living room to stay warm. Despite that, they wore tuques, three layers of clothes and several layers of bedding each night.

"The most difficult part was the length of the evenings," she says. "When it gets dark at 4:30 p.m., it's dark for a long while. And what do you do without power? We read, but with mittens and by an oil lamp."

They took meals at a small restaurant nearby with its own power. "I spoke to people I will probably never see again," she says, "but at that moment in time, you are as one, and the conversations are all on a single topic."

It was 10 days before electricity was restored to Sarault's house.

Sources of power were just as elusive at Kemptville. In des-

peration, Hawkins recalled a generator used for classroom training that had been put in storage in a campus basement seven years earlier. He and his 13-year-old son rewired the generator from scratch, then hooked it up to one of the college's main distribution panels, managing to restore power to several college buildings. Later, the duo took their show on the road, transporting their precious mechanical commodity in an old truck and stopping at area houses to give them a few minutes' power each so their pipes wouldn't freeze.

"We were scrounging for anything we could get," says Hawkins. Eventually, a portable generator with heftier power arrived courtesy of a construction company in North Bay, and

headed to the disaster-stricken town.

Just back from thesis research in balmy Kenya, Evans found herself commanding a platoon whose mission, at first, was to pump water out of the basements of people's homes flooded by the storms. Later, she was in charge of setting up a warehouse that became the central distribution point for essential supplies to area shelters.

She and her platoon were not alone. "We had retired RCMP officers, schoolteachers, all coming to help us, all wanting to pitch in."

Hawkins says it was great to see the college and community coming together. "If we hadn't had the support of the community and the military, this place would still look like a war zone." About 100 soldiers were eventually on hand at Alfred, and roughly 170 were at Kemptville.

Two linked sentiments recur among the "survivors" — appreciation for the outside help received and renewed belief in the generosity and solidarity

within each community.

Not that there weren't mental strains. "We had one family begin to cry when we knocked on their door and they saw these soldiers had arrived to help," recalls Evans. "Later they gave us a thank-you card. And it was different from what you saw on TV. From the news, you don't have a sense of how bad the people are really suffering. Pictures of trees falling don't do it justice. There was this one nurse at a shelter. She was working on call literally 24 hours a day. My soldiers would stop by and do the dishes or do some cleaning for her or something, and she would become so emotional, so grateful. It's the sort of emotions people are hiding deep down inside them."

Aware of the weight of her responsibility and the slimness of her resources, Sarault developed a short list of coping mechanisms. "As for work, I never left mentally. I was very aware of the stress that people were enduring while they were at work. A colleague was out of touch by phone, and we would worry about that. Rumors and stories float around that may be true or false but don't help matters."

What became clear is that leadership is a must, even if it is a hard thing to do under the circumstances. You really have to be patient and keep a level head. Never lose your sense of humor — being in a bad mood isn't going to make the electricity come back any quicker."

While there is still much work to be done, things move on. Evans is back at U of G studying tourism planning. Alfred College also moves forward. "Our plans and ideas and programs didn't get frozen, even if it seems everything else did," says Sarault. Curnoe musters a private thought for public consumption: "It's something I'd just as soon not live through. Or have anyone else live through."

"IT WAS DIFFERENT FROM WHAT YOU SAW ON TV. FROM THE NEWS,

YOU DON'T HAVE A SENSE OF HOW BAD THE PEOPLE ARE REALLY SUFFERING.

PICTURES OF TREES FALLING DON'T DO IT JUSTICE."

full power was restored to the campus.

The lights went on at Alfred on the first Saturday, but as at Kemptville, the surrounding townsfolk were still without. So both colleges were turned into shelters. Kemptville became home to 200 local residents frozen out of their homes, providing sleeping space, showers and hot meals. At Alfred, Sarault's emergency team pulled together to co-ordinate running their impromptu shelter and rendering aid in the community.

Overnight and for days following, the colleges became cross-roads in diversity. At Alfred, a group of Mennonites from southwestern Ontario were billeted along with a troop of soldiers from Cape Breton. All would rise early in the morning to begin the job of clearing debris from the college grounds and throughout the area, working non-stop until evening. Electrical crews from Massachusetts reconnected wires to Sarault's home in the country, while similar crews from New Hampshire were at work in downtown Alfred. Trucks arrived daily from Caterpillar and Honda in the United States and from Manitoba, Northern Ontario and the Maritimes.

Despite disturbing evening news footage of livestock freezing to death, Hawkins credits the Ontario Ministry of Agriculture, Food and Rural Affairs for much of the organizing that brought the supply of generators to area farmers. "It could have been a lot worse," he says.

Nadine Evans, a U of G master's student in rural planning and development, found herself in Kemptville. The reason was not scholastic — Evans is also an army reserve captain in the Guelph-based 11th Field Regiment. When a call for volunteers went out early in the crisis, she was one of the first to respond, and with 65 other Guelph residents — and the blessing of her thesis supervisor, Prof. Donald Reid —

## Food Preservation Sweet on Industry, Environment

Guelph researchers are the first to apply osmotic dehydration to food processing

**A**NEW SUGAR-BASED food preservation technique could mean sweet rewards for the environment and the food industry.

Prof. Marc Le Maguer and research associate John Shi, Food Science, are developing a technique designed to bring better-tasting, more nutritious and environmentally friendly food to supermarket shelves.

The method is called superior osmotic dehydration, which draws fluid out of food by osmosis. Osmotic dehydration already existed, but the Guelph team is the first to apply it to food processing.

Here's how it works. Food is placed in a solution that is 65-per-cent sugar, 35-per-cent water. The physical reaction of osmosis naturally creates a balance between the high-sugar solution and the water-filled food. So the water comes out of the food and is replaced by mostly sugar.

Le Maguer and Shi say this process has several advantages. It doesn't use a lot of energy like the hot-air drying of conventional dehydration does. It extends shelf-life without affecting taste — like salt-curing can — or nutrient content, texture and color — like hot-air drying.

Environmentally, it reduces energy cost for the food industry because osmosis takes place naturally at room temperature.

The Guelph osmotic dehydration project is setting out to learn how this new method can be applied to fruits, vegetables, meat and fish.

The success and broad applicability of Guelph's charter osmotic project has caught the attention of researchers and industry internationally, says Shi. The U of G team has struck a collaborative agreement with 11 universities in the EU nations and one in Israel.

To allow the exchange of views

and information among participants, Shi has set up a Web page at <http://www.uoguelph.ca/~odnmlm>.

Now, the researchers are trying to find a way to use this technology in industry. "The problem in moving to the industrial scale is quantity," says Shi. "In the lab, we were dealing with a litre or two of osmotic solution. The question remaining for industry is how to reuse and recycle the solution."

Le Maguer and Shi are building a statistical model of the fluid exchange between the osmotic solution and different foods to address these questions. The dif-

ferent tissue types in fruits, vegetables, meats and fish require a specific dehydration technique for each commodity. This must be done before industry can adopt the dehydration technique.

Shi and Le Maguer presented papers on their research at conferences in Portugal this fall. Their work is sponsored by the Natural Sciences and Engineering Research Council, the Ontario Ministry of Agriculture, Food and Rural Affairs, and Agriculture and Agri-Food Canada.

BY HENDRIK KAHAR  
OFFICE OF RESEARCH



# Academic Partnership Links Four Campuses

*Counselling Foundation of Canada grant ensures greater access to career development practitioner program for more students*

**T**HROUGH A UNIQUE PARTNERSHIP arrangement, a select number of undergraduate students from U of G, the University of Waterloo and Wilfrid Laurier University will be able to pursue baccalaureate studies at their home universities, take related courses at the other universities and earn a minor (and a certificate) in Conestoga College's career development practitioner program.

The co-operative venture was announced Dec. 9 at Conestoga College, with representatives of all four institutions in attendance.

It was also announced that the Counselling Foundation of Canada will provide \$300,000 to ensure the greatest possible access to the career development practitioner program. Two-thirds of this grant will go towards converting course materials from traditional classroom format to an online format available through the Internet. The first such course will be ready early in the new year; conversion of all 10 courses is scheduled for completion by fall 1998.

The remainder of the grant will go towards bursaries to help part-time students who are employed and wish to take the career development practitioner program.

Co-ordinated at Guelph by the Office of Open Learning, the college/university partnership and the

foundation's grant recognize that skilled, effective career development practitioners will be essential in all types of careers and employment settings in the future.

They will help Canada maintain a competitive edge by helping people anticipate, plan and adjust to ongoing

employment changes.

"The career development practitioner program is a fine example of both institutional collaboration and our ability to respond to current societal needs, be it from the point of view of the profession or the client," says Virginia Gray, director

of open learning.

Under the terms of the inter-institutional agreement, students will enrol at any one of the universities in a BA program. To take an appropriate course at another of the universities will require no special supplemental application procedures.

Students will earn the BA at their home universities and a certificate as a career development practitioner because the Conestoga program will be structured like a 10-course minor. Conestoga courses will be offered both onsite and through distance education.

## Toronto the Beautiful on Show in Guelph

*School of Landscape Architecture focuses on new visions for urban environments at Winterfest '98*

**F**UTURE VISIONS of Toronto the megacity are currently on display along the corridors of the School of Landscape Architecture, and the campus community and public are invited to take in the view.

The school is playing host to an exhibit featuring winners of the 1997 City of Toronto Urban Design Awards. Established more than a decade ago, the awards are designed to foster and recognize efforts at civic improvement.

Prof. Walter Kehm, Landscape Architecture, believes the value of the awards is their relevancy. "They demonstrate to students and residents how a variety of projects achieve a high level of design excellence

through intensive public involvement and interdisciplinary work. Many of the projects on display are the result of extensive citizen involvement, which allows the completed works to be sensitively knit into their surrounding environs."

The collection of photos, plans and sketches show a Toronto that is becoming greener and friendlier. Architects, designers and planners appear to be answering a call from residents who want neighborhoods rather than concrete.

Kehm organized the exhibit, which is here until Feb. 2. "I think what's interesting is that these winning projects are very much in harmony with their surrounds, in part because the

voices in design have been extended beyond a few bureaucrats or design professionals to include diverse voices in the community who have a say at every step of the process," he says. "Revitalizing urban environments into cultural cores has become a populist movement."

The award winners are an eclectic mix of creativity and function, with projects ranging in scope from community gardens in spaces between city row houses to covering the Gardiner Expressway and using part of the roof for collecting solar power.

The awards exhibition ends with a flourish, as part of the school's 10th annual Winterfest Jan. 29 to Feb. 2.

The theme of Winterfest '98 is "The City: New Visions for Urban Environments," a topic chosen in light of the recent creation of a new City of Toronto and the provincial down-loading of services to municipalities.

Prominent Toronto landscape architect Michael Hough gives the keynote speech Jan. 29 at 6 p.m. Other weekend speakers are John Sewell, former mayor of Toronto and megacity opponent, and retired U of G philosophy professor Tom Settle.

In addition to lectures, Winterfest '98 features six workshops and an interdisciplinary charette that begins Saturday at 5 p.m. in the Landscape Architecture Pit. Everyone is welcome to attend.

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Three-piece metal bathroom cabinet; women's Bauer figure skates, sizes 7 and 8 1/2; custom-made figure-skating dresses, sizes 8 to 10; downhill skis and boots, size 9 1/2; canvas tent, sleeps six, Ext. 3561 or 821-5412 evenings.

Crystal five-light chandelier with embossed scrollwork; four-light touch-control lamp, glass with gold; nine-drawer dresser with mirror and four-drawer dresser, solid dark wood; dark green night tables; shopping cart; baby stroller; portable camping toilet; balloon valances, beige with small flowers, 11 1/2 inches wide, Ext. 3044 or 821-1879.

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Two-bedroom furnished house available Feb. 1 to March 31, 10-minute walk to University, mature persons only, no pets, no smoking, \$875 a month including utilities, 822-6193.

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# GRAD NEWS

The final examination of Margo Tant, a D.V.Sc. candidate in the Department of Pathobiology, is Feb. 5 at 1:30 p.m. in Pathobiology 101. The thesis is "Acanthocytosis and Other Hematological and Serum Biochemical Parameters in the Diagnosis of Canine Hemangiosarcoma." The adviser is Prof. Tim Lumsden.

The final examination of Andrew Hamilton-Wright, an M.Sc. candidate in the Department of Computing and Information Science, is Feb. 5 at 2 p.m. in MacKinnon 317. The thesis is "A Working Guest:

Hosting Genetic Algorithm Computation Across Multiple Networked Agents." The adviser is Prof. Deborah Stacey.

The final examination of M.Sc. candidate Xia Zhang, Computing and Information Science, is Feb. 11 at 9 a.m. in Reynolds 212. The thesis is "An Optimal Soft Keyboard for Mobile Systems." The adviser is Prof. Scott MacKenzie.

The final examination of Kim Ryan, an M.Sc. candidate in the Department of Microbiology, is Feb. 11 at 1:30 p.m. in Chemistry and Microbiology 319. The thesis is "Charac-

terizations of a CACAG Pentanucleotide Repeat in and Its Possible Role in Regulation of a Novel Type III Restriction-Modification System." The adviser is Prof. Reggie Lo.

The final examination of PhD candidate Louis Tremblay, Zoology, is Feb. 17 at 8:30 a.m. in Axelrod 26SA. The thesis is "The Use of In Vitro and In Vivo Assays to Characterize the Effects of Estrogenic Compounds in the Rainbow Trout (*Oncorhynchus mykiss*)." The adviser is Prof. Ron Brooks.

Interested members of the University community are invited to attend.

## Residence Staff Help Support Local Charities

RESIDENCE LIFE STAFF are in full swing with another semester of fund-raising events on campus.

Earlier this month, Lennox-Addington residence staff held a pizza night fund raiser for the Guelph Humane Society. Headed by second-year fisheries biology student Dylan Fraser, the event raised \$300.

On Feb. 2, International House hosts its annual World on a Plate culinary extravaganza. About 15 countries will be represented by dishes prepared by various students, with some proceeds going to local charities. The event is open to the University community.

French House is hosting the International Week of the Francophonie

March 16 to 20. Other upcoming events include Safe Break, Eating Disorder Week and a 24-hour push-up/sit-up-athon to be held across campus and in the University Centre.

Will Pascoe, residence manager of Lennox-Addington Hall, says residence life staff hope to continue the success of last semester's fund-raising efforts, which included raising more than \$2,000 for Rathby House and the Guelph-Wellington Children's Society through a "Dressing for Dollars" event and collecting money and food for the Guelph Food Bank at a movie night.

For more information, call Pascoe at Ext. 4892.



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## ARBORETUM

Horticulturist Henry Kock will lead the course "A Natural Approach to Home Gardening" Monday evenings at 7:30 p.m. from Feb. 16 to March 23. Cost is \$60. Register by Feb. 9 at Ext. 4110. The course will also be offered March 12 and 19 from 9 a.m. to 4 p.m. Registration deadline is March 5.

A tap-dancing quartet from William Orlovski & Co. presents the children's show *Oliver Button Is a Sissy* Feb. 4 at 6:30 p.m. at the Arboretum Centre. Tickets are \$5. For information, call Ext. 2113.

*Two and Two Make Sex*, a comedy written by Richard Harris and Leslie Darbon and directed by John Snowden, opens Feb. 7 at Theatre in the Trees and runs Saturdays until April 25. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45. For information, call Ext. 4110.

## ART CENTRE

Artist David Rokeby, whose exhibition "Giver of Names" runs at the Macdonald Stewart Art Centre until March 1, will speak Jan. 29 at 4 p.m. at the centre. On Feb. 5, Dot Tuer discusses "Computer-Integrated Work from the Body to the Machine" at 4 p.m.

## CONCERTS

The Thursdays at Noon concert series continues Jan. 29 with Paula Elliott on flute and Sylvia Hunter on piano. On Feb. 5, pianist Valerie Candelaria performs works by Granados, Liszt, Beethoven and Mozart. Mezzo-soprano Anne-Marie Donovan and pianist Leslie De'Ath perform Schubert's *Schwanengesang* Feb. 12. All concerts are in MacKinnon 107.

The University Centre presents Holly Cole Feb. 4 at 9 p.m. at War Memorial Hall. Tickets are \$29 in advance, \$30 at the door, and are available at the UC box office.

Susan Aglukark is on stage Feb. 14 at 8 p.m. at the River Run Centre. Tickets are \$25 and \$27. For ticket information, call 763-3000.

The Vienna Choir Boys perform a 500th-anniversary concert March 1 at 8 p.m. at Church of Our Lady. Tickets are \$26 and \$21 and are available at the UC box office.

## DISCUSSION

"The Agribusiness Challenge to Organic Agriculture" is the topic of a public forum and panel discussion Jan. 30 at 7 p.m. in UC 103. Admission is a cash or food donation to the Guelph Food Bank.

The "Our World" series presents Michelle Shook and Sarah Vance, past participants in the Guatemala semester, describing the development education aspects of their experience Feb. 3. On Feb. 10, student participants in the Trent University-in-Ecuador program explore "Development Dilem-

mas: Community Development and Technology." Discussion begins at noon in UC 334.

## LECTURES

The interdisciplinary program on Canadian studies is offering a lecture series on "Media in Canadian Life" this winter. On Feb. 3, Thom Rose, foreign editor of *As It Happens*, discusses "Choosing the Foreign Agenda." "Media and Madness" is the topic of Gerald L'Ecyer, a filmmaker and contributing editor for *TVOntario's Imprint*, Feb. 10. On Feb. 12, Barry Duncan of the Educator Association for Media Literacy presents "Reading Pop Culture: From Malls to Celebrities." Lectures begin at 2:30 p.m. in MacKinnon 232.

The Third Age Learning — Guelph lecture series for retired people continues Feb. 4 with Prof. Fred Vaughan, Political Science, discussing Francis Bacon at 10 a.m., and Gordon Greene examining baroque music at 1:30 p.m. On Feb. 11, the topics are Rousseau and "Bach Drove a Complex Bus Route." Lectures are at the Arboretum Centre.

## NOTICES

The winter deadline for nominations for honorary degrees and University professors emeriti is Feb. 27. For information about the nomination process, call the Senate office at Ext. 6758.

Learning and Writing Services in the Counselling and Student Resource Centre is offering a number of courses and clinics this semester. These include free drop-in clinics on time management and exam preparation, a non-credit course on academic writing for international students, mini-workshops on writing, and "Examsmart," which offers skills training on such topics as exam anxiety management and studying and writing strategies. For more information, call Ext. 2662 or check out the Web pages [www.uoguelph.ca/csrc/learning/homepage.html](http://www.uoguelph.ca/csrc/learning/homepage.html) and [www.uoguelph.ca/csrc/writing/homepage.html](http://www.uoguelph.ca/csrc/writing/homepage.html).

U of G is providing an opportunity for students who did not apply for bursary assistance during the fall semester to submit a bursary application for financial assistance. The deadline is Feb. 16. This will be of interest to all students with financial need, particularly those who have received the maximum loans through OSAP but are still experiencing financial difficulties.

Planning sessions for International Women's Day 1998 are slated for Feb. 3 at 7 p.m. in UC 332, Feb. 9 at 6 p.m. in UC 429 and Feb. 23 at 6:30 p.m. in UC 332. All women are welcome to attend one or all of the meetings. A limited number of childcare subsidies and bus tickets are available. For more information, call Mahejabeen Ebrahim at the Human Rights and Equity Office, Ext. 6025.

The Stress Management and High Performance Clinic is offering a training program to prevent repeti-

tive strain at computer tasks. The first section of the program, an overview, is slated for Feb. 9 at 5 p.m. in UC 441. Cost is \$20 (\$5 for U of G students). Other sections on skills training and muscle tension biofeedback begin Feb. 23. For more information, check out the Web site [www.uoguelph.ca/~ksomers](http://www.uoguelph.ca/~ksomers) or leave a message at Ext. 2662.

## READINGS

Quebec writer France Théoret will give two readings on campus Feb. 5, hosted by the School of Languages and Literatures. A poetry reading begins at 11:30 a.m. in MacKinnon 119A, to be followed by discussion. At 2:30 p.m., Théoret will read from her latest novel, *Laurence*, in MacKinnon 316. Both readings will be in French.

## SEMINARS

The biochemistry seminar series continues Jan. 29 at noon with Prof. David Joseph, Chemistry and Biochemistry, discussing "Revised Ames and Objectives: Mutagenicity Assays with Bacterial Strains Expressing Recombinant Enzymes of Bioactivation" and Feb. 12 at 1 p.m. with graduate student Crista Thompson explaining "Identification and Characterization of Peptide Inhibitors of *Pseudomonas aeruginosa* Ecotoxin A Function." Both talks are in MacNaughton 222.

The Department of Environmental Biology and Faculty of Environmental Sciences present Hugh Danks of the Canadian Museum of Natural History discussing "Arctic Insects as Indicators of Climatic Change" Jan. 29 at 1:30 p.m. in Axelrod 117.

The Department of Biomedical Sciences kicks off this semester's graduate student seminar series Jan. 30 with Sirirak Chantakru outlining "Studies of NK Cell Trafficking During Pregnancy in tgE26 Mice" at 12:30 p.m. in OVC 1642.

The Plant Biology Council hosts a seminar series Wednesdays at 3:15 p.m. On Jan. 30, Charles Benbrook of Benbrook Consultant Services Inc. asks "Is Agricultural Biotechnology Ready for Prime Time?" in Crop Science 117. Marilyn Griffith of the University of Waterloo discusses "The Role of Antifreeze Proteins in Winter Survival of Plants" Feb. 4 in Axelrod 259. On Feb. 11, Malcolm Drew of Texas A&M talks about "Flooding: Mechanisms of Cell Survival and Programmed Cell Death in Roots Under Hypoxia and Anoxia" in Axelrod 259.

The Axelrod Institute of Ichthyology's "Loaves and Fishes" seminar series runs Tuesdays at 12:30 p.m. in Axelrod 168. On Feb. 3, retired zoology professor Eugene Balon discusses "Destruction of the Last Danube Delta." On Feb. 10, Bruce Morrison explains why "Sea Lampreys Don't Like Crowds."

The Department of Economics presents Arthur Robson of the University of Western Ontario discussing

"Why Would Nature Give Individuals Utility Functions?" Jan. 30. On Feb. 6, Leo Michelis of Ryerson Polytechnic University outlines "The Distribution of the J and Cox Non-Nested Tests in Regression Models with Weakly Correlated Regressors." The talks begin at 3:30 p.m. in MacKinnon 235.

The Department of Physics winter seminar series runs Tuesdays at 4 p.m. in MacNaughton 113. Next up is I.B. Khriplovich of the Budker Institute of Nuclear Physics in Russia, who focuses on "Anapole Moments" Feb. 3. On Feb. 10, the topic is "Imaging Three-Dimensional Chemical Wave Structures" with Robin Armstrong of the University of Toronto.

## SYMPOSIUMS

"Pesticides and Health: Risks and Benefits" is the theme of the 12th annual Toxicology Symposium Feb. 7. Registration begins at 8 a.m. in the OVC Lifetime Learning Centre. Cost is \$15 for lectures and lunch, \$7 for lectures only. For tickets and more information, send e-mail to Dawn Edmonds at [dedmonds@uoguelph.ca](mailto:dedmonds@uoguelph.ca).

Human kinetics students host their 28th annual symposium Feb. 7 at the Cutten Club. This year's theme is "Pushing the Limits: Current Trends in Performance Enhancement and Recovery." The day will feature four presentations by guest speakers, to be followed by discussion. Tickets are \$15, including lunch, and can be purchased from the Department of Human Biology and Nutritional Sciences until Feb. 6. For more information, call Ext. 6171 or 763-4535.

The fourth annual State of Our Earth Symposium organized by U of G students will be held Feb. 7 from 9 a.m. to 5:30 p.m. in the Thornborough Building. This year's theme is "Action Through Interaction." The day will feature a keynote address by Lara Ellis of the Wildlands League, three workshop sessions and a closing talk by North York teacher and environmental activist Skid Crease. Cost is \$5 for members of the U of G community, \$7 for others. Pre-registration is Jan. 28 to 30 and Feb. 2 to 4 in the MacNaughton Building foyer. For more information, call Ext. 3794 or check out the Web site [www.uoguelph.ca/~esse/ symposium.html](http://www.uoguelph.ca/~esse/ symposium.html).

## THEATRE

*The Hope Slide*, a one-woman show by Canadian playwright Joan MacLeod, runs nightly at 8 p.m. at the Inner Stage until Jan. 31. The show is directed by Mara Shaughnessy and performed by Godric Latimer, fourth-year drama students. Tickets are available at the door.

## WORKSHOPS

Teaching Support Services (TSS) and the ethics in science faculty interest group are offering a series of workshops to highlight controversial issues that arise out of the development and use of scientific knowledge

and to illustrate useful ways of pursuing these issues in the classroom. First up is "Genetic Engineering for Pest Management in Agriculture: Ethical Issues and Implications" Jan. 29 at 5:30 p.m. in the University Club. To register, call Helen Martin at Ext. 2793.

TSS, Computing and Communications Services and the U of G Library are offering a series of presentations and workshops for faculty interested in using the Web in their teaching. "The Web as Learning Assistant — the Basics and Beyond" runs Jan. 30 from 1 to 3 p.m. Hands-on sessions to learn the basics of Web page creation using Netscape Composer will be offered Feb. 3 and 6 at 11:30 a.m. "Garbage or Gold Mine? Critically Evaluating Web Resources" will also be offered twice — Feb. 10 at 2 p.m. and Feb. 13 at 1 p.m. All sessions will run in the library. Registration is required. For more information or to register, call Mary Nairn at Ext. 3571 or e-mail to [mairn@uoguelph.ca](mailto:mairn@uoguelph.ca).

"Improving Ongoing Feedback During Courses" is the topic of a TSS workshop Feb. 4 from 11:30 a.m. to 1 p.m. TSS director Prof. Julia Christensen Hughes and Prof. Ron Stoltz, Landscape Architecture, will present several techniques that can be used for soliciting feedback. To register, call Helen Martin at Ext. 2793.

## COMMUNITY EVENTS

Musica Viva presents its annual Valentine Cabaret Feb. 7 at 8 p.m. (doors open at 7 p.m.) at the River Run Centre. The show features show tunes and jazz with singer Kathryn Elton and friends, including former Guelph mayor John Counsell on the piano. Tickets are \$35 and can be obtained by calling 763-3000.

"Take Time for Tea" is the theme of a workshop on the history of tea presented by Guelph Museums. Sessions run Feb. 3, 10 and 17 at 7 p.m. at the Guelph Civic Museum. Cost is \$75. For information, call 836-1221.

A public meeting to gauge local interest in creating a canoeing/rowing club at Guelph Lake is set for Feb. 7 at 10 a.m. in Room 2 at the Evergreen Seniors Centre.

The Arkell Schoolhouse Gallery presents mezzo-soprano Anne-Marie Donovan and pianist Leslie De'Ath performing "A Song for Schubert's Birthday" Jan. 31 at 8 p.m. Tickets are \$15. On Feb. 13 at 8 p.m., guest performers are violinist Jacques Israelievitch and harpist Judy Loman. Tickets are \$20. For reservations, call 763-7528.

Waterloo Stage Theatre presents the musical *What About Love?* starring Kathryn Elton Thursdays to Sundays until March 22. Tickets are \$18 to \$25 and are available from the theatre at 519-888-0000.

The Guelph Historical Society meets Feb. 3 at 8 p.m. at St. Andrews Church. U of G geography graduate Robert Miller discusses "Stone Buildings in Guelph."



## IN THIS ISSUE

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## LEMON-FRESH SOIL

A team of U of G researchers has been receiving wide media attention for its discovery that lemon-scented geraniols can absorb and accumulate large amounts of heavy metals from soil. From left are post-doctoral associate Michel Perras, Prof. Praveen Saxena, graduate student Tereza Dan and research scientist Sankaran KrishnaRaj. See story on page 9.

PHOTO BY MARGARET BOVO

## Alfred Names Director

*Héroux takes up position April 27*

**GILBERT HÉROUX**, chief administrative officer of the Corporation of the Town of Hawkesbury, will become the new director of Alfred College April 27.

Héroux holds a bachelor's degree in economic geography from the University of Ottawa and a master's degree in environmental studies from the School of Urban and Regional Planning at the University of Waterloo. He has served as a member of the Ontario Municipal Board, as executive director of the Intergovernmental Committee on Urban and Regional Research and as director of the French Languages Services Branch of the Ontario Ministry of Municipal Affairs.

In announcing the appointment, president Mordechai Rozanski noted that Héroux brings a wealth of qualifications to the position. "His education, expertise and experience are coupled with the enormous respect he enjoys among colleagues and the community," said Rozanski. With Héroux as director, Alfred is "poised to take the lead into the next millennium in agriculture, agri-food and rural development, especially in its key role serving Franco-Ontarians," said the president.

OAC dean Rob McLaughlin agrees, calling Héroux "a visionary in his field and a gifted manager. We couldn't be more delighted to welcome him aboard."

When Héroux takes up his new appointment, Jocelyne Sarault, who assumed the position of acting director of Alfred in April 1997, will return to her position as associate director (academic). Sarault "is to be commended and thanked for her leadership of the college through the transition and search periods," said McLaughlin.



Gilbert Héroux

## A Listening Post for University Community

*Series of campus meetings to encourage discussion with students, faculty and staff*

**T**O ENCOURAGE DISCUSSION of the issues that will shape higher education in general and campus life in particular, president Mordechai Rozanski and his colleagues have begun meeting with small groups of faculty and students in informal settings, with similar efforts being mounted for staff.

Earlier this month, Rozanski and provost Iain Campbell met over lunch with 15 faculty and librarians who had been nominated by college deans and the library, and who have been at U of G five years or less. The result was a lively discussion, provocative questions and answers and a frank airing of concerns close

to those around the table. Similar get-togethers are planned for mid-seniority faculty and senior faculty at later dates.

Concurrently and at the invitation of Interhall Council, Rozanski has also met with students, at their request, in residences. Watson Hall residence assistant Julie Kugalj was one of about 25 students on hand last fall when the president came to visit them in their lounge. She says that students initially wanted to know about Rozanski's travel and educational experiences, particularly in China. Later, talk turned to key education and campus issues.

"It was very useful in allowing

students to know a little bit more about who the president is and what his standpoint is on several issues," says Kugalj. "Some of us felt we hadn't really heard his views before. He was very casual and got on great with the students. We spoke a lot about how the administration can become more visible on campus."

Rozanski has also accepted invitations to Lennox-Addington Hall, Macdonald, Mills and Lambton halls, South and East residences, Arts House, Maids Hall and "World on a Plate" at International House. In early February, he met with 30 students at Johnston Hall. Chad Harvey, Johnston Hall president, echoes Kugalj's

thoughts on the value of the open-agenda visit. "Personally, I thought it was very good, the president getting out and being visible. I was pretty aware of his views on most of the subjects covered, but some of the other students were not. There was a good rapport; he left us with some good points to ponder."

Concludes Kugalj: "We are still talking about the issues that were raised that night. Having the president here really sparked discussion on the issues, which I think is tremendously important for students."

An open forum for students organized by Senate secretary Brenda Whiteside and Laurie Schnarr of the Counselling and Student Resource Centre, will be held Feb. 12 from 5 to 7 p.m. in Peter Clark Hall. Student groups assisting with planning the event have indicated they wish to discuss issues such as enrolment, tuition and budget planning, as well as their effect on the future direction of the University.

Rozanski, Campbell and Ken Grant, director of Institutional Analysis and Planning, are also meeting with all college dean's councils to review U of G's directions and the provincial and federal situations. Rozanski expects that all these meetings will generate follow-up activities by the administration.

## Breakthrough Technology Licensed

*Invention designed to save animal breeders millions of dollars*

**A**BREAKTHROUGH technology designed to save animal breeders millions of dollars by pre-selecting the sex of their livestock has been developed at U of G, along with a biotechnology company to fully develop and commercialize the invention.

Invented by Prof. Stan Blecher, Molecular Biology and Genetics, the technology has been licensed on an exclusive worldwide basis to Gensel Biotechnologies Inc., a U of G spin-

off company incorporated in late 1996.

In mammals, sex of an offspring is determined by the male through the sperm. The sperm-sexing process uses an immunological technique to detect certain male- or female-specific proteins on the surface of the sperm cells, enabling male-producing sperm to be separated from female.

It is believed this technology will have major importance to the dairy,

beef and swine production industries, where it is anticipated the ability to predict the sex of an offspring will result in large productivity gains. These are estimated to be as high as \$2 billion a year in North American and Western Europe alone.

The dairy, beef and pig industries each have preferences of one sex over the other for specific and largely economic reasons, says Jeremy Gawen, Gensel's president and CEO and

*Continued on page 2*



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Representatives of the Maple Lodge Farms Foundation, which has donated \$10,000 towards renovations in the Food Science Building, were on campus recently to tour the building. From left are OAC dean Rob McLaughlin, Wendy May Robson and Kathy Weinhold of the foundation and 1970 OAC graduate Ginty Jocius of Ginty Jocius & Associates in Guelph.

PHOTO BY MARTIN SCHWALBE

## Extensive Field Trials Planned

Continued from page 1

director of the University's Business Development Office.

"Using the current system of breeding by artificial insemination, the producer has no way to predict which sex the offspring will be," says Gawen. "Using the Gensel technology, animal producers will be able to pre-select the sex of the offspring."

The sperm-sexing technology, which laboratory trials show to have an accuracy rate of more than 93 per cent, follows 12 years of research by Blecher and his genetics research team. Blecher's primary research focus over the past several years has been on the genetic factors that determine the embryo's development into either a male or female offspring.

Now, thanks to the technology, dairy breeders will be able to select their desired female offspring to produce milk; pig breeders will be able to

select females for their leaner, higher-quality meat; and beef breeders will be able to select males for their superior muscle development, lower fat content and better feed efficiency.

"The University of Guelph has long staked out a position as a leader in the realm of biotechnology, and this research breakthrough is clear evidence of that," says Gawen.

The next steps are to fully develop the technology, to carry out extensive field trials with selected industry partners before offering it to the animal-breeding companies under royalty-bearing licence agreements. Gawen predicts that if successful, the technology will have a tremendous impact on animal-breeding and production industries around the world.

With U of G as Gensel's research partner, the biotechnology company has assembled a team of 12

researchers led by Blecher to carry out the development, perfecting it for those organizations that sell stock and semen to producers. Gensel has negotiated a \$3-million research contract with the University to carry out the development over the next three years.

Gawen says animal breeders the world over will need no convincing. The cattle and pig industries of North America and Europe spent a staggering total of \$1.5 billion in 1996 on artificial insemination. With the advantages offered by this technology, he expects the interest in converting to the new process will be high.

"I believe we will see our technology commercialized in three or four years. It will be a huge and welcome leap forward for the industry."

BY ANDRES KAHAR  
OFFICE OF RESEARCH

## APPOINTMENTS

Prof. Daniel Chouinard has been named director of the School of Languages and Literatures for a five-year term that began Jan. 1.

Prof. Mary Cyr began a five-year term as director of the School of Fine Art and Music Jan. 1.

Robert Dony joined the School of Engineering as an assistant professor Aug. 1.

Prof. Isobel Heathcote, Engineering, has been appointed associate dean of graduate studies, effective Jan. 1.

Elizabeth Anne Lee of the University of Missouri will become an assistant professor in the Department of Plant Agriculture April 15.

Prof. Chris McKenna, Economics, began a five-year term as chair of the department Jan. 1.

Prof. Michael Moss has been reapp-

ointed associate dean of the Faculty of Environmental Sciences, effective Feb. 1.

Prof. Larry Peterson has been reappointed chair of the Department of Botany for a three-year term, effective Jan. 1.

Istvan Rajcan of Saskatoon will join the Department of Plant Agriculture as assistant professor March 1.

Prof. Jamie Snell has been named chair of the Department of History. His five-year term begins July 1.

William Tam joined the Department of Chemistry and Biochemistry as an assistant professor Jan. 1.

Prof. John Walsh began a five-year term as director of HAFSA Jan. 1.

John Zelek will join the School of Engineering as assistant professor April 1.

## @GUELPH

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## CALLING ALL ARTISTS

The College of Arts is staging an open competition inviting students, alumni and members of the public to submit original logo ideas to visually represent the college. The top three submissions will win cash prizes. Submissions are due March 2, must be rendered in black and white and must be no larger than 17 inches in either direction. Winning submissions

become the property of the College of Arts. For an entry form or more information, call external liaison officer Christine Boyle at Ext. 3135 or send e-mail to [cboyle@arts.uoguelph.ca](mailto:cboyle@arts.uoguelph.ca).

B OF G SEEKS  
EXTERNAL MEMBERS

Board of Governors is seeking nominations for external members for a three-year term that begins July 1. The board is particularly interested in expanding its list of qualified candidates to include external members from designated groups. Send nominations, marked confidential, to the B of G Membership Committee, Board Secretariat, Level 4, University Centre. Nominations remain active for three years after submission.

## FOCUS ON CITIZENSHIP

The Counselling and Student Resource Centre is promoting citizenship in February, encouraging students to run for election, to vote, to attend a lecture on a topic of concern to citizens or to volunteer for an organization. Nominations for student positions on Senate, Board of Governors and the Central Student Association (CSA) executive close Feb. 13 at 4 p.m. Students will have a chance to meet the CSA candidates Feb. 23 at noon in Room 103 of the University Centre. The candidates will also speak at forums Feb. 24 at noon in the UC courtyard, Feb. 24 at 7 p.m. in the Eccles Centre and Feb. 27 at 7 p.m. in Lambton Hall. Voting runs March 2 to 5.

STUDENT COURT CASE  
TO RESUME MARCH 25

Thirty-one students charged with trespassing last spring by U of G police appeared in city court Feb. 4. The charges were laid after students protesting tuition increases interrupted a Board of Governors meeting in the University Centre March 27, 1997. If convicted, the students each face a fine. The trial resumes March 25.

## CLASSICS SYMPOSIUM SET

The Classics Club will hold its sixth annual literary and philosophical symposium Feb. 28 in Room 107 of the MacKinnon Building. Registration begins at 8:45 a.m.; talks run until 5:30 p.m. This year's topic is "The God in the Text." Cost is \$5 at the door; students pay \$4 if they register in advance. For more information, call Ext. 3156 or 763-6976.

Governor General Honors  
Seven U of G Students

*Awards designed to foster environmental awareness in Canada Scholars*



**S**EVEN U OF G STUDENTS were among the 30 winners of the 1997/98 Governor General's Canada Scholarships in Environmental Engineering and the Environmental Sciences, sponsored by Du Pont Canada Inc. Governor General Roméo LeBlanc presented the awards Jan. 23 at Rideau Hall in Ottawa.

The scholarships were established

to foster a higher environmental awareness among Canada Scholars and to encourage them to pursue environmental projects and careers crucial to the environment. The awards were established in 1991.

Standing, from left, in the photo above are scholarship recipients Tina Bailey, Lillian Zarembo, April Meyer, Nicola Calder, Kristi Rowe, Elliot

Welch and Jennifer Kidon. In front are environmental sciences program counsellor Jill Johnson; Prof. Lambert Otten, director of the School of Engineering; Kevin Lynch, deputy minister of Industry Canada; Governor General LeBlanc; Dave Henderson, vice-president, human resources, Du Pont Canada; and CPES dean Bob McGrindle.

## The Politics of Change

*Newly renamed Department of Political Science repositions itself as faculty integral to mission and strengths of University*

**T**HE DEPARTMENT of Political Science is undergoing a makeover. It has refocused its teachings on the national and international issues of the day, incorporating this into an ongoing plan to reposition itself as a faculty integral to the mission and strengths of U of G.

"I think we sometimes fail to realize that political science cuts across all areas of the University," says department chair Maureen Mancuso. "Politics at all levels affects our daily lives, perhaps more so than we realize. What we learn from studies in governance, as well as relations with and within governments, is crucial to our future well-being."

Change in the Department of Political Science has happened on several levels. In October, Senate passed a motion that changed the department's name from "political studies" to "political science," in line with kindred departments at universities across Canada. An overhaul to the curriculum has resulted in new courses being offered this semester. And just off the ground is a plan to reach out to other southwestern Ontario universities and come up with a system of offering courses that complement one another or fill a gap in another university's curriculum.

For students, this sea change is immediately evident in the classroom, where three new undergraduate courses were launched in January. Prof. William Christian is teaching "The Art

of Politics," a survey of how politics are represented in the movies, art and music. Prof. Jorge Nef offers a course on international relations featuring the Americas and the Caribbean. Mancuso is teaching "Corruption, Scandal and Political Ethics." All three courses filled up early, and feedback so far has been encouraging, says Mancuso.

"The curriculum revamp came about because we discovered there was a great interest among students in international politics and development issues, so we decided to create courses along those lines," she says.

The trio of new offerings joins an existing curriculum that includes courses on politics and the environment and politics and sexuality, as well as more traditional areas of inquiry. And next year — integrating related strength areas of U of G — Prof. Richard Phidd will teach "Politics of Science, Agriculture and Human Well-Being."

College of Social Science dean David Knight is confident that the curriculum changes "enhance the potential for students' intellectual growth and understanding."

Inter-university co-operation among political science departments is slated to expand beyond existing graduate-level ties to undergraduate course options. A University of Waterloo section began last month on "Communism and Post-Communism" and was offered to U of G students via the electronic classroom. In return, Guelph will present a course

open to both Waterloo and Guelph students in the next academic year.

Mancuso hopes that further curriculum partnerships will be up and running by next fall, involving Guelph and five other universities — Waterloo, Wilfrid Laurier, McMaster, Western Ontario and Brock. The ultimate result of this cost-effective use of resources will be improved cross-institutional ties between faculty, and more choice and leading-edge "real world" courses for students, she says.

Knight notes that although political issues are inherent in the functioning of society, they are not always well understood. "Our political scientists seek to assist students in becoming aware of how and why such issues arise and how they can be addressed by careful, insightful analysis," he says. Despite such analysis, how the discipline fares is often left to the unscientific whims of a capricious public. According to Mancuso, proof of political science's relevance and connection to the outside world can be garnered from an unlikely source — enrolment figures.

"It's interesting. The department's fate seems sometimes to depend on society's cyclical interest in politics and politicians. If people are down on politicians and cynical about politics in general, then enrolment goes down in this department, as it does in political science departments at universities across the country."

BY ALEXANDER WOOLEY

## PEOPLE

## CBS PROFS EDIT JOURNALS

Prof. Denis Lynn, Zoology, is the new editor of the *Journal of Eukaryotic Microbiology*. Prof. David Noakes, Zoology, has been named associate editor for the *Transactions of the American Fisheries Society*, the largest and oldest scientific and professional society in its field in North America. The society has more than 6,000 members and publishes five major international journals from its headquarters in Maryland.

## STUDENTS OFFER KUDOS

Peggy Coghlan, a staff member in the School of Engineering, has won the Canadian Federation of Engineering Students Appreciation Award, presented annually to a non-student who has made significant contributions to student life at an accredited engineering faculty.

PHILOSOPHER PRESENTS  
CONFERENCE SUMMARY

Prof. John McMurtry, Philosophy, presented the "Reflections" at the end of a six-day international symposium on "Economic Globalization: Challenging Corporate Rule" in Toronto in November. His talk was titled "The Inner Logic of the Corporate Agenda: Diagnosis and Prognosis of a Pathological Program."

## SCULPTURES ON EXHIBIT

Reinhard Reitzenstein, a sessional instructor in the School of Fine Art and Music, installed a sculpture project in the Toronto Sculpture Garden for an exhibition entitled "BLUR," which continues until April 15. He also unveiled public art commissions recently in Etobicoke and for the newly dedicated Wolfe Sculpture Garden at the London Regional Gallery.

U OF G REPRESENTED  
AT BANGKOK FAIR

Lynne Mitchell of the Centre for International Programs represented U of G at the Education Fair in Bangkok, organized by the Canadian Education Centre. While in Thailand, she made presentations on study opportunities at Guelph at Suranaree University of Technology, Chiangmai University and Yonok College. She also discussed the return of the first five Thai Golden Jubilee students to Khon Kaen University.

ENGLISH PROF LECTURES  
AT EUROPEAN SERIES

English professor Patrick Holland recently returned from Europe, where he spent part of his study leave. As a guest of the University of Udine, he offered a short seminar course on "Aspects of Postmodernism and Postcolonialism in Recent North American Writing" and spoke at a conference co-sponsored by the Canadian Ambassador to Italy. He also lectured at Ca' Foscari University in Venice in the series "Canadian May in Venice." Holland visited the University of Cluj-Napoca in Romania to give two public lectures on "History, Ideology, Esthetics and Their Postmodern Relations."



# New Technique Monitors Volatile Emissions at Contaminated Sites

Bell Canada, U of G team explore ways of monitoring the surface exchange of volatile organic compounds from diesel-contaminated soil

**A** NEW WAY OF MEASURING volatile emissions from contaminated soils could significantly reduce the financial and environmental costs of bioremediation.

The technique was developed at U of G to help Bell Canada in its efforts to clean up 17 diesel-contaminated sites in northwestern Ontario, but it can be used to measure volatiles from any hydrocarbon fuel undergoing bioremediation.

The new method identifies and assesses volatile emissions to determine the efficacy of the bioremediation process, which previously could not be measured directly. This will ensure that unacceptable levels of hydrocarbon contamination are not escaping into the atmosphere and do not threaten human health.

"Using the method to measure the emissions at sites with different

meteorological and soil conditions, we have determined that emissions from the bioremediation facilities are small and not a threat to human health," says Prof. Grant Edwards, School of Engineering. Edwards leads a research team composed of Prof. Terry Gillespie, chair of the Department of Land Resource Science, graduate students Sandra Ausma and Edwina Wong, and Wendy Mortimer. Bell Canada's project scientist for the Northern Ontario Soil Bioremediation Project.

In 1995, Bell formed a research partnership with Guelph to explore ways of monitoring the surface exchange of volatile organic compounds from diesel-contaminated soil. The diesel-contaminated sites were originally contaminated by spillage and operational effects related to Bell's provision of telephone

service to remote northern communities, primarily First Nations communities. Bell Canada and the Ontario Ministry of Economic Development, Trade and Tourism have committed more than \$3.5 million to remediate the sites. Bioremediation is now under way and is expected to take several years.

The goal of the remediation project is to protect the environment from further damage during the process through monitoring and controlling off-gassing and contaminated water run-off, minimizing energy consumption and using innovative methods to minimize solid-waste generation. Graduate student training is an important component of the project. Bell Canada provided \$69,000 for the second phase of the research.

A proposal for further research is

now being evaluated by Bell Canada. Over the next two years, the Guelph team proposes to conduct laboratory and field studies to assess data collected on site and to identify management practices to reduce environmental risks.

"From a research point of view, we are coming up with better ways to manage these sites so that they don't pollute the environment," says Edwards.

Mortimer notes that Bell's approach is now being considered for use in remote sites by other companies and government organizations.

"Canadian expertise can result in worldwide spinoff as the partnership develops diagnostic and environmental monitoring methods that improve our ability to conduct environmental risk assessment," she says.

BY MARGARET BOYD

## Halogen Lamps Hazardous

**T**HE U OF G FIRE DIVISION is recommending that halogen lamps not be used on campus because of the high potential for fire.

The U.S. Consumer Product Safety Commission and the Underwriters Laboratories have recognized a potential hazard with Halogen Torchier Floor Lamps.

The commission is aware of at least 189 fires and 11 deaths since 1992 involving halogen lamps. At U of G, a residence room was severely damaged last year by a fire caused by a halogen light.

If you have a halogen lamp at home, observe the following tips:

- Never place the lamp near curtains or flammable material.
- Never leave the lamp unattended.
- Keep children and pets away from the lamp to avoid tipping.
- Use a halogen bulb of 300 watts or less in the lamp.

## This Town Ain't Big Enough...

Guelph can't meet the needs for upscale accommodation, conferences and related facilities, survey finds

**T**HE CITY OF GUELPH loses hundreds of thousands of dollars and scores of visitors each year because of a lack of suitable conference and hotel facilities.

That was one of the findings of a recent survey conducted jointly by HAFa and the City of Guelph. The results were announced by HAFa director Prof. John Walsh at a downtown press conference last month.

"At the present time, Guelph cannot meet the needs of national and international companies, professional associations and similar organizations for upscale accommodation, conference and related facilities," said Walsh, who acted as study co-ordinator.

In October, 250 Guelph businesses were mailed a short questionnaire asking for a business profile of their organization and what use they made of hotel and conference facilities. About 40 per cent

replied — a response rate that both surprised and pleased Walsh. A few respondents were later selected for follow-up interviews.

One in three respondents said that, in the past, they had booked VIP accommodation and conference facilities outside Guelph because of a lack of adequate facilities here. In the preceding year alone, companies had gone outside Guelph 106 times. Forty nine per cent of survey respondents described VIP accommodation facilities in Guelph as unsatisfactory, compared with 46 per cent who said they were satisfactory. The dearth in facilities was especially felt among large companies — those with 50 or more full-time employees.

"It's not so much a question of quality of service from our existing hospitality and tourism professionals; it's a bricks and mortar issue," said Walsh. "Fundamentally, we

don't have the facilities required to compete in the conference business."

Larger firms that responded said they need better-quality rooms and hospitality facilities, preferably with in-house dining standards to match. Currently, most make do with what they see as "inadequate" facilities or book elsewhere, often in Toronto. In contrast, smaller firms surveyed generally agreed that current Guelph hotel facilities are adequate.

The report was submitted to the director of planning and business development for the City of Guelph, Tom Slomke. Like Walsh, he appreciates the neutrality of the survey methodology. "As a first step, that was one of the good things about it. We didn't interpret whether the results were good, bad or otherwise. It's information with which to start."

Walsh says HAFa's participation in the project, which was carried out at a fraction of the cost of a com-

mercial market survey, was motivated by a sense of civic pride. "Our students, faculty and staff all live and work in this community, we enjoy tremendous community support from the city of Guelph, and this was an opportunity to contribute to that community. How could we not?"

Says Slomke: "We appreciated the seriousness and effort put in by HAFa to provide us with this information. It's just another example of a co-operative effort between the city and the University."

Walsh stresses that as clear as the findings are, they aren't the last word on the subject. Demand and funding for new facilities would have to be explored in depth before any real recommendations could be made, he says. "Whether going after upscale conference and accommodation markets is a sound business proposition is different from

whether there is a need. In my opinion, in order to secure the investment required to construct these facilities, those organizations that want them would have to guarantee a portion of the business."

Slomke agrees that it's difficult to determine what the demand might be. "Though having said that, it is important to realize that we were looking at just one slice of the pie — business needs. We didn't look at potential tourist use of such facilities, for example."

Report in hand, he is ready to entertain ideas as to how to proceed: "I'm inviting the survey participants, other interested parties and the community at large to give us suggestions as to our next step."

The survey was also supported by the Guelph Chamber of Commerce and the Visitor and Convention Services Advisory Committee.

BY ALEXANDER WOOLEY

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Valerie Poulton



## U of G Honors Ecologist

*From boreal forests to everglades, he studies ecosystem dynamics*

**C**RAWFORD HOLLING knows how the world works. One of the most influential ecologists of our time, he is a specialist in systems ecology and understands better than most how organisms interact within ecosystems as small as a few centimetres or traversing hundreds of kilometres in space.

Members of the campus community will have an opportunity to hear Holling speak Feb. 18 and 19 when he visits Guelph to receive an honorary doctorate of science. Hosted by the Department of Zoology and College of Biological Science, he will give a seminar on "Why Nature is so Surprising" Feb. 18 at 4 p.m. in Room 265A of the Axelrod Building and will deliver the convocation address Feb. 19 at the afternoon ceremony in War Memorial Hall.

While a student at the University of Toronto in the early 1950s, Holling began his research career at the provincial forest research labs in Sault Ste. Marie. He continued his interest in forest ecology while completing a PhD at the University of British Columbia, then worked for several years for Canada's environment ministry, emphasizing mathematical and experimental analysis of ecological processes, particularly predator/prey dynamics. Many Guelph faculty and students are familiar with his early research on spruce budworm outbreaks in the conifer forests of eastern North America.

Since 1967, Holling has been, at various times, professor and director of the Institute of Resource Ecology at UBC and director of the International Institute for Applied Systems Analysis in Vienna, Austria. The breadth of his expertise in systems ecology encompasses land use, urban planning, economics, environmental planning and conservation.

Holling now holds a scholarly research chair in ecological sciences at the University of Florida. The boreal

forests and the everglades are the focus of modelling and analysis research that may answer how these systems are organized across vast scales of physical space and time. His research looks at the way these ecosystems might respond to global climate change.

Holling is a fellow of the Royal Society of Canada and has been awarded the Austrian Cross of Honor for Arts and Science. He recently launched an online journal called *Conservation Ecology*.



Crawford Holling

## Convocation Awards to Soil Scientist, Economist

**T**WO U OF G FACULTY members will be honored during winter convocation ceremonies Feb. 18 and 19. Retired land resource science professor David Elrick will be named University professor emeritus, and Prof. David Prescott, Economics, will receive the John Bell Award.

Elrick will deliver the convocation address for graduates of OAC at the 2:30 p.m. ceremony Feb. 18. A 1953 graduate of the college, Elrick returned to his alma mater in 1957 and has earned an international reputation as a soil scientist during his 40-year career here.

He has held at least 10 visiting

professorships worldwide and is recognized by his peers for his innovative work in ground-water transport and the development of the Guelph permeameter. Used to measure the transport of water through soil, the permeameter was licensed in 1985, and more than 700 have been sold around the world.

As a teacher, Elrick has demonstrated an unflinching interest in both his subject and in new learning technologies. He has regularly taught undergraduate and graduate courses in soil physics since 1963, but recently adapted the graduate course to an electronic format. He served as chair of the Department of Land Resource Science from 1971 to 1975 and later as acting dean of both graduate studies and research.

The John Bell Award, U of G's most prestigious teaching award, will be presented to Prescott at the 10 a.m. ceremony Feb. 19, when he will address graduates of the colleges of Arts and Social Science. Named for the late John Bell, a former chair of the Department of Languages and Literatures, the award recognizes achievement in academic leadership and teaching.

Prescott is an associate professor in the Department of Economics



David Elrick

PHOTO BY MARTIN SCHWALBE

and assistant dean of the College of Social Science. He has 20 years of teaching experience at U of G and was honored in 1991 with the U of G Faculty Association's Distinguished Professor Award.

In addition to serving the University on a number of teaching-related committees, Prescott has been extensively involved in curriculum development and the evolution of the CSS computer laboratory. He also wrote a textbook on economic theory and policy that is widely used in many Canadian universities.



David Prescott

PHOTO BY  
DEAN PALMER/SCENARIO IMAGING

## Vocal Pipes and Bagpipes Will Highlight Ceremonies

*Two student vocalists chosen to open convocation*

**W**INTER CONVOCATION ceremonies will open with a vocal rendition of "O Canada" — performed for the first time by a U of G student.

Vanessa Lindsay, a fourth-year sociology and anthropology student, will sing at both ceremonies Feb. 18; Emily Schryer, a second-year music student, will take over the microphone the following day.

In addition, each of the four ceremonies will feature a bagpipe procession and recessional — a highlight usually reserved for installation ceremonies — played by Don Hamilton of the Department of Environmental Biology.

Both vocalists say they are honored to be asked to sing the national anthem. "It makes it seem more like our convocation," says Schryer, whose father will be among the faculty contingent at the Thursday morning ceremony for the colleges of Arts and Social Science. Prof. Frans Schryer is a member of the Department of Sociology and Anthropology.

Although Schryer is a second-year student, this is her first semester at Guelph. She transferred from McGill University's program in music history to specialize in baroque performance and is now working with Theresa Thibodeau. The young vocalist also sings with the U of G Choir and Chamber Choir.

Although Schryer has participated in a number of competitions, one of her favorite memories is a solo performance at the Elora Festival four years ago when she won its "You Heard Them Here First" competition. She lives in Kitchener and hopes for a performing career.

Lindsay sings on campus with the Early Music Ensemble under the direction of Prof. Mary Cyr, director of the School of Fine Art and Music, and off campus as a member of the St. John's Parish Choir in Elora. Guelph is her home town, and she is a veteran of the

local Kiwanis Music Festival.

A Kiwanis performance in 1994 led to an invitation from the Dare Foundation of Toronto to represent Canadian music students at an Opera Italia education program in Paris. In 1996, she won a silver medal from the Royal Conservatory of Music in Toronto for having the highest marks in Grade 10 voice. She also teaches piano and is learning to play the harp.

Lindsay looks forward to her own convocation in June when she will receive a BA in sociology with a music minor. She plans to do graduate work in ethno-musicology at York University, where she will combine her interests in anthropology and music by studying the musical traditions of different cultures.

The young voices of Schryer and Lindsay will contrast dramatically with the resounding tones of the bagpipes. Hamilton says he enjoys playing in War Memorial Hall, where the "drapes and the upholstered chairs and upholstered people" make for good acoustics. "I like a big room," he says.

Hamilton has been piping for 35 years and plays at many community functions — Masonic Lodge, weddings, funerals, curling bonspiels, reunions and anniversaries and, of course, Robbie Burns events (five this year).

He has also piped for several University ceremonies, including the installation of Chancellor Lincoln Alexander and Alexander's predecessor, Edmund Bovey. For the past three years, he has piped for fall invocation ceremonies to welcome new students to campus. But this will be the first time Hamilton has been able to follow the true Scottish tradition by wearing the U of G coat of arms. Look for it on the bass drone of the instrument as he enters the convocation hall.

STORIES BY  
MARY DICKIESON

## Winter Convocation Schedule

Feb. 18, 10 a.m.	Speaker: Professor emeritus Jim Stevens, Physics
FACS & CPES	
Feb. 18, 2:30 p.m.	Speaker: Prof. David Elrick, Land Resource Science
OAC	
Feb. 19, 10 a.m.	Speaker: Prof. David Prescott, Economics
Arts & CSS	
Feb. 19, 2:30 p.m.	Speaker: Crawford Holling
CBS & OVC	



# WHERE'S THE BEEF?

*"Food-safety debates rarely involve assertions that are plainly true or false. Much of the time, the issue is about risk assessment and policy judgments about what level of risk is acceptable."*

BY DOUGLAS POWELL

**T**HE BARTENDER WAS RIVETED. So was the waitress. My requests for a beverage on a nonchalant Tuesday afternoon in Kansas City would have to wait until commercial. Such is the power of Oprah.

That's Oprah Winfrey, talk show diva, who began as an actress and now finds herself, along with her production company and vegetarian activist Howard Lyman, at the centre of a \$10.3-million lawsuit brought by Texas cattle ranchers.

Already the trial has been marred by charges of racism, sexual deviancy among Oprah's staff and the pass-the-buck approach of producer-blaming-host and host-blaming-producer for what was eventually aired.

Beyond the media circus in Amarillo, Texas, where the savvy Winfrey has been taping her show since the trial began in a star-studded appeal to public sentiment, the trial is the first legal test of food defamation laws, now on the books in 13 U.S. states. The Texas version of the food libel law allows recovery of damages if someone knowingly makes a false claim about a food that causes consumers to refuse to buy it — and the producer to lose money.

During the April 16, 1996, Oprah Winfrey show, the host announced in her best-acting fashion that she would stop eating hamburgers because of fears over bovine spongiform encephalopathy (BSE), also known as mad cow disease, and that she was shocked after a guest said meat and bone meal made from cattle were routinely fed to other cattle to boost their meat and milk production. The camera showed members of the studio audience gasping in disbelief as Lyman explained how cattle parts were rendered and fed to other cattle and how BSE could make AIDS look like the common cold.

Within minutes, word of the show's content spread to the Chicago futures exchange, where already slumping cattle prices were driven to 10-year lows. Lost in the frenzy, which became known as the Oprah crash, were the proactive and aggressive undertakings by U.S. cattle producers and regulators to absolutely minimize the risk of BSE becoming established in the United States.

The concern was sparked by a March 20, 1996, announcement from British Health Secretary Stephen Dorrell, who informed colleagues in the House that scientists had discovered a new variant of Creutzfeldt-Jacob disease (CJD) in 10 victims and that they could not rule out a link with consumption of beef from cattle with BSE.

Overnight, the British beef market collapsed and politicians quickly learned how to pronounce BSE and CJD. Within days, the European Union banned exports of British beef. Consumption of beef fell throughout Europe, especially in France and Germany, and in Japan, where suspicion of foreign food runs high. And the telltale triumvirate of uncertain science, risk and politics was played out — and continues — in media headlines.

To date, 23 people have died from CJD, the link with BSE has been scientifically substantiated, almost two million U.K.

cattle have been slaughtered, and the BSE crisis has cost the United Kingdom and the European Union an estimated \$10 billion.

Yet to refer to the events of 1996 as the BSE crisis is a misnomer, just as scientists are quick to point out that mad cow disease should more appropriately be called sad cow disease or unco-ordinated cow disease.

Rather, the announcement of March 20, 1996, was the culmination of 15 years of mismanagement, political bravado and a gross underestimation of the public's capacity to deal with risk. More important than any of the several lessons to be drawn from the BSE fiasco is this: the risk of no-risk messages. For 10 years, the British government and leading scientific advisers insisted there was no risk — or that the risk was so infinitesimally small that it could be said there was no risk — of BSE leading to a similar malady in humans, CJD, even in the face of contradictory evidence.

Following the March announcement, questions in North America were immediately raised about the practice of feeding herbivores ruminant protein or, as it was often described, feeding dead animals to animals that only ate plants.

Immediately following the U.K. announcement, the U.S. Department of Agriculture (USDA) and Food and Drug Administration (FDA) announced beefed-up inspection of live cattle imported from the United Kingdom before 1989 and expansion of current "antemortem" inspection for BSE.

The USDA statement also noted that the agency's BSE surveillance program had examined more than 2,660 specimens from 43 states and that no BSE had ever been detected in cattle from the States. And the USDA said it was working with state and public-health counterparts, scientists and industry representatives to review current policies and regulations relat-

ed to BSE. These were all concrete actions, issued in a timely manner, and subsequently widely reported.

On March 29, 1996, nine days after the original U.K. announcement, the USDA and FDA announced they were expediting regulations prohibiting ruminant protein in ruminant feeds, boosting surveillance and expanding research. The same day, several producer groups, including the U.S. National Cattlemen's Beef Association (NCBA), issued a statement supporting the moves and instituting a voluntary ban on ruminant protein in ruminant feed. Draft legislation was published in January 1997 and enacted into law later that year.

Then there's Oprah. Sharing the stage with Lyman during the BSE segment of the show was Gary Weber of NCBA. The ranchers suing Oprah contend that statements like the above were deliberately edited out of the final broadcast. Anyone who has seen the actual broadcast would easily identify choice camera cuts and the interspersing of audience responses in a way to make Lyman look good and Weber look bad, all in dramatic fashion. It is, after all, television.

After the show was broadcast, NCBA got on the horn and complained about being misrepresented. Oprah relented, and Weber was back on the tube a week later to further explain the efforts of producers to manage the risk of BSE appearing or becoming established in the States. Weber was content; some Texas ranchers were not, and they sued.

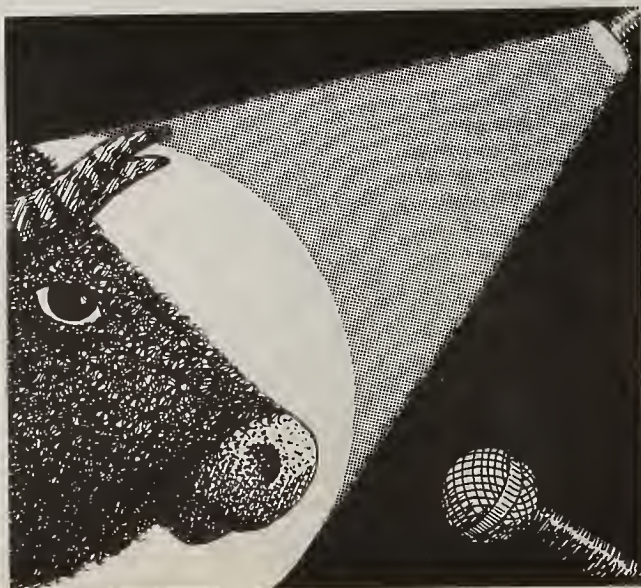
Food disparagement laws will probably be found to be unconstitutional. As the *New York Times* and virtually every other media outlet in the States has noted, food-safety debates rarely involve assertions that are plainly true or false. Much of the time, the issue is about risk assessment and policy judgments about what level of risk is acceptable.

For the past five years, there has been a tremendous increase in media and public attention surrounding microbial food-safety issues. And sometimes people make exaggerated or even erroneous claims. But the answer doesn't lie in heavy-handed laws that cast a chill on free speech.

The current state of risk management and communication research suggests that those responsible for food-safety risk management must be seen to be reducing, mitigating or minimizing a particular risk. Those responsible must be able to effectively communicate their efforts and must be able to prove they are actually reducing levels of risk.

Even at the peak of public discussion about BSE in the United States, around the time of the Oprah crash, private polling conducted by the NCBA showed that confidence in American beef was at an all-time high. Open discussion and proactive management still carry the day, even in the face of Oprah.

*Prof. Douglas Powell is a faculty member in the Department of Food Science. His first book, Mad Cows and Mother's Milk, written with Bill Leiss of Queen's University, was published last fall.*



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# BREAKING NEW GROUND IN B.C.

*Focus on stewardship is sustaining influence throughout BLA grad's career*

BY MARY DICKIESON

**M**OURA QUAYLE is a 1974 Guelph graduate who is breaking new ground on the west coast. She was recently appointed dean of agricultural sciences at the University of British Columbia.

If you think the breakthrough is the fact that Quayle is a female dean, think again. Five of the 12 deans at UBC are women.

And although it's true there are only a few women in North America who are deans of agriculture colleges, the real progression in Quayle's appointment lies in the fact that she is a landscape architect. Academics with a background in the more traditional agricultural disciplines of animal, plant or soil science tend to dominate this realm.

Quayle says she's learning how closely the traditional disciplines tie in with her expertise in resource management. Her thoughts harken back to her student days at Guelph, where "it was drilled into us that as landscape architects, we would be stewards of the land and its resources."

Her new role is a natural fit for a landscape architect, says retired professor Victor Chanasyk, founding director of Guelph's School of Landscape Architecture and one of Quayle's former professors. He says her appointment at UBC shows the expansion of the aims of plant and animal improvement and production agriculture to environmental concerns, which have long been associated with landscape architecture. Many Canadian agriculture colleges and their predecessors in the United States were envisaged more than 125 years ago "as colleges of environmental planning and management," says Chanasyk. "Dean Quayle's appointment may be said to bring that aim full circle."

Quayle herself believes her academic discipline had a lot to do with her July 1997 appointment as dean of UBC's Faculty of Agricultural Sciences, but on a much more personal level.

"The faculty has always looked at us in landscape architecture as creative, energetic people. I think there was a sense that this was a time in the faculty when we needed people who understood process. Landscape architects have a focus on research that includes citizen participation and an understanding of the importance of a community in making decisions."

During Quayle's 15 years at UBC, her research and teaching emphasis has been on the urban and community landscape, on such aspects as environmental design, community building, urban ecology, sustainability and livable cities. In 1992, she chaired the City of Vancouver's Urban Landscape Task Force and produced a report that inspired the Vancouver Greenways



Program. In 1993, she was awarded the Vancouver YWCA's Woman of Distinction Award for Communications and Public Affairs.

She believes the task force experience, which involved looking at everything from changing property values to changing attitudes in the wake of a green space development, was good preparation for the new challenge in a college that is rethinking its own use of resources and its sustainability.

"It is time for some tough decisions. We cannot control the wind, but we can adjust the sails." Those were the words Quayle used last fall to accelerate the process of academic restructuring, which had been simmering in the faculty for nearly a decade. Quayle says she and her colleagues at UBC are poised

to implement both structural and program changes that will give the Faculty of Agricultural Sciences more flexibility.

As of March 31, the faculty's departmental divisions will be gone. Quayle is planning a retirement party to bring closure for professors and staff who will now work together in program teams in a centralized administrative unit. "We're not just tinkering around the edges here," she says. "We didn't want to transform ourselves into something else that's rigid."

She's also looking for more efficient use of resources. The faculty experienced a 3.5-per-cent drop in its operating budget last year, and she questions how long B.C. universities and colleges will be able to escape the kind of cuts the Ontario and Alberta systems have suffered.

For her new administrative role, Quayle considered OAC's Vision 2000 program to be required reading, and she says she has borrowed ideas used at U of G to consolidate and eliminate courses. "It was helpful to have Guelph leading the way with its curriculum changes," she says.

The dean's propensity for consensus building stems from a career focused on people. She loves teaching and finds the greatest satisfaction in research that seeks to understand the interface between people and the natural environment.

After graduating from Guelph, Quayle worked for several years in Victoria, Vancouver and Montreal before completing a master's degree at the University of California. She joined UBC's landscape architecture program in 1983 and occupied the director's chair for a year before becoming dean.

At this juncture, she can't see herself moving into other administrative duties. "I look at academic vice-presidents and think how hard it must be to leave your discipline to pursue institutional priorities. I'm certainly expanding my knowledge base beyond landscape architecture, but I still feel rooted because I'm dealing with land and landscape."

Quayle retreats from the UBC campus to an ocean-front home in Nanaimo that she shares with her husband, David Fushley, who earned a BLA from Guelph in 1979. He is a technology development and intellectual property lawyer at Russell DuMoulin in Vancouver, but a stone sculptor at heart. The couple recently built two studios at Quayle's family property on Vancouver Island. Fushley is using one of them to rekindle the interest he developed in sculpture 20 years ago while participating in Guelph's London Semester. His studio is filled with large pieces of marble and granite; hers sports a computer and a multitude of green space and urban landscape designs. Their interests seem to be connected by a desire to bring nature's beauty into human living spaces.

## Enrolment Reaches New High at Ontario's Agricultural Colleges

*Promising job market, new ties with U of G boost interest in agriculture and food diploma programs across the province*

**E**NROLMENT IS ON THE RISE in Ontario's agriculture and food diploma programs.

Total enrolment in these programs — offered at Kemptville, Ridgetown and Alfred colleges and U of G — has risen from 1,032 to 1,157 in the past three years, an increase of 12 per cent.

One reason for this growth is the promising job market for diploma graduates, says David Beattie, director of educational programs at OAC.

"The practical skills learned in our diploma programs prepare students for excellent job opportunities," he says. "As this market expands, so does the interest among students throughout the province."

New ties with U of G are another cause for rising enrolment, says Beattie. Last year, the enhanced partnership between Guelph and the Ontario Ministry of Agriculture, Food and Rural Affairs brought Ontario's agricultural colleges together in a new way. Students enrolled at Ridgetown, Kemptville and Alfred now graduate with a U of G diploma.

"Enrolment will continue to increase as a result of these revised diploma programs," says Beattie. "Students realize that obtaining a University of Guelph diploma will mean increased recognition and opportunities for them after they graduate."

The agricultural and horticultural diploma programs at each location now have a common core curriculum, with each college offering specific areas of academic and research expertise. Kemptville offers the only equine program province-wide. Enrolment at this college is also rising in its one-year certificate power and equipment program.

Ben Hawkins, Kemptville's associate director of academics, says increasing demands from industry are creating many new placement opportunities for graduates. "A positive economic climate, in addition to the recognition achieved through a University diploma, are responsible for increasing enrolment," he says.

Alfred College, the only French college, is unique in that it offers the only international agricultural development program with international study opportunities.

"With the enhanced partnership, interest in client-based services in research and in continuing education has increased," says Jocelyne Sarault, acting director of Alfred. "Recognition of the University of Guelph's name has contributed to this new interest and growing enrolment at Alfred."

Benefits of the new diploma program are also being felt at Ridgetown. "This partnership has created a University of Guelph diploma with a local flavor," says director Gary Ablett.

Ridgetown houses one of the only fully accredited veterinary technology programs in Ontario. Other programs are also getting noticed. "Greater name recognition through this partnership is helping to recruit more students for our agricultural and horticultural programs," Ablett says.

At OAC, students are benefiting from the increased flexibility that has broadened the scope of the diploma program, says Beattie. Students are encouraged to take courses and gain from the various resources offered at each location. By building on relationships among the colleges and U of G, the partnership has created a virtual campus that extends province-wide, he says.

As a final incentive for increasing enrolment, Ontario's farming industry is experiencing good prices and higher returns, says Beattie. In this prospering economic climate, more people from farming backgrounds have the opportunity to pursue studies in agricultural fields.

"After obtaining their diplomas, many graduates are returning to the farm to apply their acquired skills," he says. "More and more students are realizing the benefits of this education for careers in industry and on the farm."

BY SARAH HAINES  
OFFICE OF RESEARCH





Representatives of the Kitchener-based First Echo Group, which donated funding through its Yukon subsidiary, icy Waters International, to create the Low-Temperature Research Laboratory in the Axelrod Institute of ichthyology Aquaiab, recently visited the lab. They met with Prof. Jlm Bailantyne, Zoology, who is collaborating with icy Waters on a project to enhance arctic char aquaculture in Canada. For this work, the facility now holds the largest collection of arctic char strains in the world. From left are Bailantyne and First Echo Community Fund representatives Ann Bradiey, Margaret Motz and Robert Motz, a 1995 graduate of Guelph.

PHOTO BY MARTIN SCHWALBE

## Trusting in Research

User-sponsored fund targets equine health, welfare

**G**UELPH'S DRIVE to promote equine health and welfare has taken a big leap ahead, thanks to OVC's creation of the Horse Health Trust. It operates through donations from practitioners and owners, much like the popular Pet Health Trust, with a decidedly equine flare.

Pet Health Trust, which generates \$750,000 a year for research, "is very successful in replacing lost government research money, and we wanted to give a similar financial boost to horse research," says Horse Health Trust chair Bob Wright, manager of equine and alternative livestock with the Ontario Ministry of Agriculture, Food and Rural Affairs. "The Horse Health Trust will be a mechanism for veterinarians and clients to provide support for horse research in a formal manner," he says.

The new trust was set up by a joint industry/University group. It will provide funds for:

- research into common health problems in horses;
- basic research to enhance the understanding of normal, healthy horses;
- advanced training of specialists and the development of new therapeutic surgery and anesthesiology techniques; and
- education, through fellowships and scholarships.

A Board of trustees that includes the dean of OVC, the co-ordinator of equine research at U of G and representatives from the Ontario Association of Equine Practitioners will administer the trust. The board will meet annually to plan and review strategies for fund generation and allocation, and will develop priorities in research areas.

To receive funds from the trust, applicants will submit proposals to a peer review committee, which will meet annually to review the scientific merit and industry relevance of all proposals.

"Only quality science will be supported by the trust," says Wright. "Projects must not duplicate other research and must fit into the trust's research priorities. People who donate to this trust on behalf of a horse or an equine veterinarian can be assured that their money is going directly to improve the health and welfare of horses through research."

BY JENNY TYE  
OFFICE OF RESEARCH

## Soybean Contest Sparks Industry Support

**T**HE SOYBEAN INDUSTRY'S support for a new contest that encourages student involvement in research and innovation is growing.

The Ontario Soybean Growers' Marketing Board and the Ontario Federation of Agriculture (OFA) Special Projects Advisory Group have each awarded \$5,000 to Project SOY (Soybean Opportunities for Youth), a joint venture between Guelph-based First Line Seeds and U of G.

"The strength behind Project

SOY is its collaboration between industry and the University of Guelph," says Tom Lassaline, chair of the Ontario Soybean Growers' Marketing Board. "Our sponsorship of the program will bring it further strength."

For the contest, students are required to develop new ideas for soybean marketing, research and innovation. The competition is designed to give students a chance to gain practical skills while establishing links with the industry —

and an opportunity to win cash prizes.

"Ultimately, we expect that Project SOY will have a long-term positive impact on the soybean industry in Ontario," says Lassaline. "We're pleased that we can help enhance this contest, and we hope to encourage others to follow our lead."

The driving force behind the contest is First Line Seeds' efforts to identify new ways to use soybeans, raise the profile of this commodity and increase demand for soybeans

and their products.

"We really feel that First Line Seeds has taken a huge industry initiative with Project SOY, by getting students involved with agriculture and research at the undergraduate and graduate levels," says Gerry Carey, chair of OFA's Special Projects Advisory Group. "We hope that other commodity groups besides the soybean industry see the advantages of promoting innovation and realize the potential of students as a resource for new ideas."

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Arlene Yee, seated, Jean-Paul Dini and Chung-Ja Jackson are testing the validity of health claims surrounding functional foods such as garlic. PHOTO BY KERSTI KAHAR

## Is Nature's Best Medicine Found in Functional Foods?

Researchers challenge reported benefits of popular nutraceuticals

**F**UNCTIONAL FOODS such as garlic, ginseng and soybeans are under scrutiny at a new research and analytical centre at U of G.

The Guelph Centre for Functional Foods (GCFF) — part of the University's Laboratory Services — is helping to identify the validity of "functional foods" or nutraceuticals. They're being gobbled up by health-conscious consumers for their therapeutic effects, but many of their reported benefits have gone unchallenged by science.

That's where the GCFF comes in. "The centre uses analytical methods that detect and measure the active nutrients in functional foods," says Arlene Yee, manager of analytical services at Laboratory Services. "Only through a commitment to this research will we be able to validate the health benefits of nutraceuticals."

The GCFF works in conjunction with the departments of Food Science and Human Biology and Nutritional Sciences. It also collaborates with the universities of Toronto and Western Ontario. The centre relies on highly specialized expertise and state-of-the-art equipment such as mass spec-

timeters and liquid chromatography instruments to isolate and quantify ingredients that are claimed to have medicinal properties.

The therapeutic value of some of these functional foods, such as oat bran, is officially endorsed by the U.S. Food and Drug Administration. Others such as garlic, soybeans, tomatoes, broccoli and blueberries await regulatory approval with regards to their health claims.

But the GCFF isn't waiting. Testing is ongoing for garlic, a food acclaimed by food scientists to have a multi-factorial effect. Prof. Bruce Holub, Human Biology and Nutritional Sciences, a longtime advocate of garlic consumption, collaborates with the centre in this research. Recently, his group published the results of a clinical trial showing that processed garlic mixed with fish oil lowered blood cholesterol levels.

Allicin, an organo-sulphur compound, has been linked to reduced cholesterol and triglyceride levels. It is also effective as an immune booster, an anti-bacterial agent and an anticancer compound. At the GCFF, allicin levels are being tested in dif-

ferent varieties of garlic.

Isoflavones (phytoestrogens) — substances found in soybeans — are also being tested. They're believed to be active agents in the prevention of breast, colon and prostate cancer, osteoporosis and atherosclerosis.

Wild blueberries are also showing promise. As a good source of antioxidant activity, these berries may help prolong life, lower the risk of cancer and heart disease, and slow the rate of age-related changes in the brain.

By teaming up with other researchers around the country, the GCFF is forming a functional foods network and strengthening its position in the field. Continuing clinical research and the development of analytical methods are required to assist in the validation of health claims.

Yee says the expansion of this industry may mean new value-added products on the market. "As functional foods gain widespread appeal, it could also mean a cheaper, natural alternative for consumers' health," she says.

BY SARAH HAINES  
OFFICE OF RESEARCH

## On the 'Scent' of Soil Remediation

Scented solution could be key to removing heavy metals from contaminated soil

**G**ERANIUMS ARE TURNING a new leaf in the fight against environmental contamination.

U of G researchers recently discovered that lemon-scented geraniums can absorb and accumulate large amounts of heavy metals from soil. This is good news for remediation and agricultural industries struggling to find economical and environmentally friendly ways to rehabilitate contaminated soils.

The researchers who made the discovery are horticultural science professor Pravven Saxena, research scientist Sankaran KrishnaRaj, post-doctoral associate Michel Perras and graduate student Tereza Dan. Their work has been receiving wide attention in the national and international media since the discovery was announced.

The lemon-scented geranium is a newly discovered phytoremediator — a plant that can remove pollutants from metal-contaminated soils posing a threat to human and animal health. It is more specifically called a *hyperaccumulator* because of its ability to take up and accumulate metal ions in its shoot tissues in very high concentrations.

In greenhouse experiments, when well-rooted uniform cuttings of lemon-scented geranium were watered with various metal solutions, they accumulated up to 3,200 milligrams of cadmium, 18,700 mg of lead, 6,400 mg of nickel and 650 mg of copper in one kilogram dry weight of plant tissue within two weeks. The plants exhibited no signs of toxicity or stress and appeared to be tolerant of a wide range of toxic metals.

There are other identified hyper-accumulators, such as Indian mustard, but lemon-scented geranium has several advantages in addition to the amount and variety of heavy met-

als it can accumulate. It has a good growth habit and represents a value-added crop because essential aromatic oils can be safely extracted, and the heavy metals can be retrieved from the plant biomass.

"The plant could be of importance in agriculture because it will take up unhealthy levels of metals that may be in the soil due to industrial and intensive farming practices," says Saxena. "It also has market value as a crop."

In addition, many conventional remediation methods such as soil flushing or excavation are costly and often leave the soil sterile and unfit for subsequent agricultural practices, but phytoremediation using scented geranium plants actually conditions the soil.

The time required to phytoremediate a particular site would depend on the levels of heavy metals in the soil.

The researchers have also tested the ability of scented geraniums to remediate soil contaminated with a mixture of metals and organic contaminants under greenhouse conditions.

The scented geraniums were not only able to uptake metals from the soil, but were also able to tolerate nearly 29,000 parts per million of hydrocarbon contaminants present in the soil. The next step is to test the plants in pilot-test plots in the field.

U of G recently filed a U.S. patent application to secure the rights for the use of plants belonging to the *pelargonium* species to remediate metal-contaminated soils.

This study was funded by the Environmental Science and Technology Alliance of Canada, a consortium of Canadian companies.

BY MARGARET BOYD

## Symposium to Address Major Crop Issues

**R**eaching out to North American growers and allowing them to learn from each other's experiences is the goal of a symposium March 6 at U of G.

Running from 9:30 a.m. to 4:30 p.m. at the Arboretum Centre, the symposium will address major crop issues such as conservation tillage, herbicide-resistant crops, weed control, nutrient management and risks associated with pesticide use.

"We're trying to reach out to growers, dealers and extension personnel with the most recent information from University of Guelph

crop research," says crop science professor Clarence Swanton, who is organizing the event.

The symposium's morning session will focus on tillage and the adoption of conservation tillage systems, particularly with clay soil. The afternoon session features agronomist Michael Owen of Iowa State University, who will share ideas on herbicide-resistant crops in North America.

Cost of the symposium is \$35, which includes program notes and lunch. Pre-registration is required. For more information, call Swanton at Ext. 2512.



## TURNING BACK THE PAGES

Darlene Frampton, director of communications and public affairs, had a chance to compare notes with a predecessor, Doug Waterston, when he paid a visit to campus recently. Waterston served as director of information services at Guelph from the mid-1960s to mid-1980s when *At Guelph* was known as the *News Bulletin*. Here, he checks out the publication's new design with Frampton.

PHOTO BY VERN MCGRATH



## Human Resources Offers Job-Related Skills Training

**H**UMAN RESOURCES is again offering a number of faculty and staff development opportunities this semester. The winter program features a broad range of offerings, including safety training, technical and computing technology training, and human relations skills development.

"We recognize that primary responsibility for training and developing employees exists with the heads of departments," says Karen Kovats of Human Resources, "but the development opportunities offered through the training and development function of Human Resources provide programming that meets the institution's needs for job-related skills development."

Most of the programs have

been designed in a one-day format to recognize operating requirements at the departmental level, says Kovats, but each course can be approached as one component of a larger skills package.

"The skills development initiated in one program can be augmented in subsequent courses," she says, "and there are many ways to group programs and form skills sets that will help you — or the people who report to you — enhance job-related knowledge and skills."

This semester, Human Resources has launched a "passport" to faculty and staff development opportunities. This is a personal record of attendance at programs offered through HR and can be used to receive formal

recognition for participation.

Another first this semester is that HR's programs are on the Web. Check out the site at <http://www.uoguelph.ca/HR/training/>. Kovats notes that the Web site includes a questionnaire that offers members of the University community an opportunity to make comments and suggestions about the course offerings.

All course costs are supported by HR. All full-time employees and those with continuing appointments of longer than six months are eligible to enrol. Depending on the availability of openings, registrations will continue to be accepted well into the semester, Kovats notes. For more details, call her at Ext. 6495 or Margaret Middleton at Ext. 6800.

## LETTERS

### PART-TIME EMPLOYEES ARE COMMITTED TO THE UNIVERSITY

IN THE DECEMBER ISSUE of the University of Guelph Staff Association (UGSA) *Staff Report*, UGSA president Mark Evans claims the decline of morale on campus is due to the fact that U of G "seems to have subscribed to the philosophy that a good employee is a part-time employee with no benefits, no union and no long-term commitment to the University." He also claims that many supervisory staff on campus are unable to "treat their employees with respect and just common courtesy" and that some of these managers are reluctant to "provide adequate retraining to employees in redundant positions."

I agree with his evaluation that morale on campus is in a decline and that the University administration is not dealing with the fears and tensions of its employees with enough of a personal touch. I also agree that part-time or contract employees are at a disadvantage in the University community. My reason for believing this, however, differs greatly from Evans's.

You see, I am one of these part-time employees.

I agree that the past two years have been stressful for the University community, but they've been especially stressful for part-time employees, who don't know if there will ever come a time when they can be hired full time.

For the record, I have been employed at the University since August 1990 and have worked in nine departments on campus, generally covering holidays and maternity or sick leaves, with the occasional coverage while a job is being posted and filled by a "displaced" employee. During this time, I have had occasion to be designated temporary full time, and the UGSA has been happy to take union dues from my paycheque, even though the union can do very little for me because I am on a limited appointment. Still, I support the union because I believe it serves a valuable purpose in protecting employ-

ees from unfair treatment.

I object to the statement that supervisory staff at U of G are not meeting the needs of others employed in their department or those brought in from other departments in the restructuring. It has been my experience that administrative assistants and secretaries have gone out of their way to protect positions and retrain their staff on the new computer programs that are being brought into the office environment.

I am greatly offended by the classification of part-time employees as having no commitment to the University. I have worked on campus for eight years with virtually no chance of achieving full-time employment, yet I am still here. I am confident this would qualify as commitment.

In his *Staff Report* article, Evans also says: "We will be hard-pressed to convince students of the value of a university education if the only non-faculty contacts they have are perceived to be minimum-wage part-timers with little or no longevity nor commitment to the institution." I find this comment puzzling for three reasons. First, I don't understand how students would know an employee is part time unless they were told. Second, I didn't realize a university education was necessary to obtain employment on campus. Third, I can assure you that some of my contacts with full-time employees at Guelph (I was an undergraduate here) do not represent the "friendly" environment that Evans professes would exist without part-time employees.

During my eight years in various departments on campus, I have met many wonderful people and have had a chance to learn skills and programs I might not otherwise have learned. This has made me a more valuable employee. Although Evans is entitled to his opinion about the decline in morale on campus, I suggest that before he blames part-time employees, he should consider the value of the work we provide.

LINDA ROBSON

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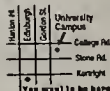


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Basement bachelor apartment, separate entrance, walking distance to campus, non-smokers, no pets, available immediately, 824-5753 after 6 p.m.

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Two-bedroom furnished house available Feb. 1 to March 31, 10-minute walk to University, mature persons only, no pets, no smoking, \$875 a month including utilities, 822-6193.

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Care for your dog in my home while you travel, Cobi, 836-8086 or send e-mail to cdemmers@uoguelph.ca.

Two tickets for Susan Aglukark Feb. 14 at the River Run Centre, good seats, Clare, 826-7552 or send e-mail to cmitch01@uoguelph.ca.

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Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Linda Graham on Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@exec.admin.uoguelph.ca. For more information, call Ext. 6581.

## GRAD NEWS

The final examination of Laurie Poirier, an M.Sc. candidate in the Department of Human Biology and Nutritional Sciences, is Feb. 16 at 9 a.m. in Animal Science and Nutrition 306. The thesis is "Chronic Ethanol Feeding Decreases Insulin-Stimulated Glut4 and vAMP2-Translocation in Rat Adipocytes." The adviser is Prof. Laura Nagy.

The final examination of Baljit Singh Raina, an M.Sc. candidate in the Department of Computing and Information Science, is Feb. 16 at 10:30 a.m. in Reynolds 212. The thesis is "Delay-Optimized Placement in Symmetrical Field-Programmable Gate Arrays." The adviser is Prof. Dilip Banerji.

The final examination of Louis Tremblay, a PhD candidate in the Department of Zoology, is Feb. 17 at 8:30 a.m. in Axelrod 265A. The thesis is "The Use of In Vitro and In Vivo Assays to Characterize the Effects of Estrogenic Compounds in the Rainbow Trout (*Oncorhynchus mykiss*). The adviser is Prof. Glen Van Der Kraak.

The final examination of PhD candidate Trevor Friesen, Zoology, is Feb. 27 at 9 a.m. in Axelrod 259. The thesis is "Effects of Food Abundance and Temperature on Growth, Survival, Development and Abundance of Larval and Juvenile Smallmouth Bass." The adviser is Prof. David Noakes.

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## ARBORETUM

Horticulturist Henry Kock leads workshops on "The Art and Practice of Pruning" March 5 and 7 from 1 to 4 p.m. Fee is \$25 per session. Registration deadline is Feb. 26. To register, call Ext. 4110.

*Two and Two Make Sex*, a comedy written by Richard Harris and Leslie Darbon and directed by John Snowdon, runs at the Theatre in the Trees Saturdays until April 25. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45. For information, call Ext. 4110.

## ART CENTRE

Macdonald Stewart Art Centre director Judith Nasby discusses "Curating the MSAC Sculpture Park" Feb. 17 at noon.

Gregory Klages gives a gallery talk on the current MSAC exhibition "A Sense of Time and Place" Feb. 26 at 4 p.m.

## ATHLETICS

The Guelph men's hockey team hosts Ottawa Feb. 14 at 7:30 p.m. and McGill Feb. 15 at 2 p.m. Both Gryphon basketball teams host Brock Feb. 18 — the women's team at 6 p.m. and the men's at 8 p.m. On Feb. 21, the basketball teams host Windsor at 2 p.m. (men's) and 4 p.m. (women's). The OUAA wrestling finals come to Guelph Feb. 22, beginning at 10 a.m.

## CONCERTS

The Thursdays at Noon concert series in MacKinnon 107 continues Feb. 12 with mezzo-soprano Anne-Marie Donovan and pianist Leslie De'Ath performing Schubert's *Schwanengesang* and Feb. 26 with an alumni concert.

The Vienna Choir Boys perform a 500th-anniversary concert March 1 at 8 p.m. at Church of Our Lady. Tickets are \$26 and \$21 and are available at the UC box office.

## CONFERENCE

WUSC-GUELPH holds its second annual International Development Conference Feb. 28 in the MacKinnon Building. This year's theme is "Making the Link: Development at Home and Abroad." Cost is \$10. Registration is limited. To register, send e-mail to msand@uoguelph.ca. For more information, send e-mail to pwienis@uoguelph.ca.

## LECTURES

A lecture series on "Violence Against Women of Color" concludes Feb. 12 with Nita Gupta focusing on "Women of Color: Healing From Violence" at 7:30 p.m. in MacKinnon 116.

Honorary degree recipient Crawford Holling gives a talk on "Why Nature Is So Surprising" Feb. 18 at 4 p.m. in Axelrod 265A.

The "Media in Canadian Life" lecture series sponsored by the interdisciplinary program in Canadian studies continues Feb. 12 with Barry Duncan of the Educator Association for Media Literacy discussing "Reading Pop Culture: From Malls to Celebrities" and Feb. 24 with Prof. Don Richardson, Rural Extension Studies, explaining "Rural Telecommunication in Canada and Developing Societies." Lectures begin at 2:30 p.m. in MacKinnon 232.

The School of Fine Art and Music presents two visiting speakers Feb. 25. At noon, Ron Hamilton discusses "What's the Big Idea? An Aboriginal Perspective on Interpretations of Northwest Coast Native Art" in MacKinnon 107. David Moos explores "Theories at the End of the Decoration: Abstraction and Ornamentat in Contemporary Painting" at 5:30 p.m. in Zavitz 320.

Third Age Learning — Guelph's lecture series for retired people continues Feb. 25 with Prof. Fred Vaughan, Political Science, discussing Nietzsche at 10 a.m. and Gordon Greene examining "Handel Drove a Train" at 1:30 p.m. Lectures are at the Arboretum Centre.

The Guelph chapter of the Sigma Xi Society presents Bob MacDonald, host of CBC's *Quirks and Quarks*, Feb. 25 at 7 p.m. in Thornbrough 100. His topic is "Science: A Journalist's Perspective."

"Ontario Provincial Parks — Traditions and Trends" is the topic of Norm Richards, managing director of Ontario Parks, Feb. 25 at 7 p.m. at the Arboretum Centre. A reception will follow. The free public lecture is presented by the School of Landscape Architecture and Ontario Parks as part of a co-operative partnership program.

## NOTICES

An information meeting about the winter 1999 Paris semester will be held Feb. 12 at 5 p.m. in MacKinnon 314. For more details, call Prof. Stan Barrett, Sociology and Anthropology, at Ext. 3894 or 3403, or Prof. John Burton, Animal and Poultry Science, at Ext. 3680 or 3688.

To accommodate guests attending convocation Feb. 18 and 19, parking lots P.23 and P.24 (Textiles Building) and P.44 (Johnston Hall) will be reserved, except for premium parking spaces. Alternative parking for regular users can be found in P.19, P.17 or P.7.

Women who provide care or other assistance to a parent are needed to complete a 30-minute survey on their experiences for a research project by psychology graduate student Joan Nandlal. Daughters need not reside with their parents. Sisters who provide care to the same parent may participate. Participants will enter a lottery for prizes. For information, call 766-4746 or send e-mail to jnandlal@uoguelph.ca.

U of G is offering an opportunity for students who did not apply for bur-

sary assistance during the fall semester to submit a bursary application for financial assistance. The deadline is Feb. 16. Applications are available at Student Financial Services on UC Level 3.

Habitat for Humanity is holding a plant sale Feb. 12 and 13 from 9:30 a.m. to 4 p.m. in the MacNaughton Building lobby.

The Stress Management and High Performance Clinic's program on preventing repetitive strain at computer tasks continues with skills training beginning Feb. 23. Sessions run Mondays from 5 to 6:30 p.m. in UC 441. Cost is \$60 general, \$20 for U of G students. For more information, leave a message at Ext. 2662 or check out the Web site [www.uoguelph.ca/~ksomers](http://www.uoguelph.ca/~ksomers).

The winter deadline for nominations for honorary degrees and University professors emeriti is Feb. 27. For information about the nomination process, call the Senate office at Ext. 6758.

The Canadian International Development Agency (CIDA) has launched a new competition for the CIDA Awards for Canadians. Application deadline is April 30. The guidelines and application form will be posted on the Web in mid-February at <http://www.dbie.ca>.

The Centre for Development Studies is sponsoring a travel and research seminar in Cuba July 5 to 28 for professors and graduate students in the social sciences, history and related applied fields. Cost is \$2,995 (not including airfare). For more details, contact Charles McKelvey by March 1 by telephone at 864-833-8385 or 864-833-1018, by fax at 864-833-8481 or by e-mail at [cmck@cs1.presby.edu](mailto:cmck@cs1.presby.edu).

## SEMINARS

The biochemistry seminar series features Crista Thompson explaining "Identification and Characterization of Peptide Inhibitors of Exotoxin A Function" Feb. 12 at 1 p.m. On Feb. 26, Christopher Hogue of the University of Toronto and Mount Sinai Hospital talks about "Bioinformatics — From Chromosome to Co-ordinate" at noon. Seminars are in MacNaughton 222.

The Department of Biomedical Sciences presents graduate student seminars Fridays at 12:30 p.m. in OVC 1642. "Primordial Germ Cells in the Fetal Goat" is the focus of Kip Wigmore Feb. 20. On Feb. 27, Annette Marleau explains "Maternal to Fetal Cell Trafficking Across the Murine Placenta."

The Plant Biology Council seminar series continues Feb. 25 with Bruce Greenberg of the University of Waterloo discussing "The Importance of Structural Modification of Chemical Contaminants in Environmental Toxicology" at 3:15 p.m. in Axelrod 259.

Uli Reinhardt of the University of British Columbia is guest speaker Feb.

24 at the Axelrod Institute of Ichthyology's "Loaves and Fishes" seminar series. The topic is "Salmon Making Choices: Foraging or Predator Avoidance." The talk begins at 12:30 p.m. in Axelrod 168.

The Department of Physics presents Kate Scholberg of Boston University discussing "Recent Results from Super-Kamiokande" Feb. 24 at 4 p.m. in MacNaughton 113.

## SYMPOSIUM

The School of Fine Art and Music presents a symposium on Russian music and culture March 7 from 9:45 a.m. to 4:45 p.m. in MacKinnon 107. Keynote speaker Malcolm Brown discusses "Research on Russian Music in the Soviet Union, 1961 to 1991" at 10 a.m. Other topics include "Censorship of the Arts Under the Tsars" and "Culture of the Keyboard in 18th-Century Russia." The symposium will also feature a recital of Russian songs at 3 p.m.

## WORKSHOPS

Teaching Support Services, Computing and Communications Services and the U of G Library are offering a series of presentations and workshops during Reading Week for faculty interested in using the Web in their teaching. Sessions are slated as follows: "Introduction to the World Wide Web" Feb. 16 at 1 p.m., "The Web as Learning Assistant" Feb. 17 at 2 p.m., "Hands-On!" (Level 1) Feb. 18 at 10 a.m., "Design Café" Feb. 18 at 2 p.m., "Effective Design for the Web" Feb. 19 at 10 a.m. and "Hands-On!" (Level 2) Feb. 20 at 1 p.m. Registration is required. To register, call Helen Martin at Ext. 2427 or visit the Web site <http://www.tss.uoguelph.ca/ce/web-devw98.html>. For more information about the series, call Mary Nairn at Ext. 3571.

"Reading in an Electronic Age: A Vanishing Skill?" is the topic of a workshop being offered by Teaching Support Services and Learning and Writing Services Feb. 26 from 10:30 a.m. to noon in Day Hall 125. Facilitators are Nancy Schmidt of Learning and Writing Services and Prof. Norman Gibbins, Microbiology. To register, call Helen Martin at Ext. 2973 or send e-mail to [hmartin@tss.uoguelph.ca](mailto:hmartin@tss.uoguelph.ca).

## WORSHIP

The Campus Ministry is offering a multi-faith program called "Millennium: Apocalypse Soon? What Do World Religions Teach About the End of the World?" Feb. 24 at 7 p.m. in UC 103. Representatives of various world faiths will be on hand for discussion.

## COMMUNITY EVENTS

The Canadian Wildflower Society meets Feb. 18 at 7:30 p.m. in Axelrod 100. Prof. Doug Larson, Botany, will discuss "Old-Growth Forests on Cliffs of the Niagara Escarpment and on Cliffs Around the World." Everyone is welcome.

The Guelph Spring Festival needs your unwanted treasures or unusual items for its annual fund-raising garage sale March 29 from noon to 3 p.m. at Guelph Farmers' Market. If you would like to donate books, records, CDs, jewelry, small appliances, glassware, china, silverware, pictures, frames, small furniture, knick-knacks or the unique or unusual, you can arrange for pickup by calling 821-7570 days or 824-9927 evenings and weekends.

The Guelph UNICEF Committee presents Andrew Ignatieff, program manager with UNICEF Canada, discussing child labor Feb. 18 at 7 p.m. at Harcourt Memorial United Church.

The Guelph VON is looking for volunteers willing to spend one to four hours a week sharing stories and experiences with a socially isolated individual. For more information, call Debbie Bergey at 763-5943, Ext. 1117.

The Arkell Schoolhouse Gallery presents violinist Jacques Israelievitch and harpist Judy Loman Feb. 13 at 8 p.m. and a cello, viola and flute trio Feb. 28 at 8 p.m. For reservations, call 763-7528.

Barbara Coloroso, author of *Kids Are Worth It!* *Giving Your Child the Gift of Inner Discipline*, will speak Feb. 17 at 7 p.m. at the River Run Centre. Tickets are \$12 and are available at 763-3000.

The Elora Festival presents comedian Dave Broadfoot Feb. 28 at 8 p.m. at the River Run Centre. Tickets are \$23.50 and \$21.50 and are available at 763-3000.

The Central Ontario Orchid Society meets Feb. 23 at 7 p.m. at Rink in the Park in Waterloo. Guest speaker John Marcotte will discuss "Trials and Tribulations of an Orchid Grower." A discussion on preparing plants for shows will follow. For more information, call Ext. 4375.

Wyndham House will hold a fund-raising dream auction Feb. 26 at the Steelworkers Centre, 89 Dawson Rd. A silent auction begins at 7 p.m., followed by a live auction at 8 p.m. Tickets are \$5 and include a wine and cheese reception.

A five-session lenten program exploring the significance and meaning of dreams runs Wednesdays from 7:30 to 9 p.m. at St. David and St. Patrick Anglican Church on Speedvale Avenue, beginning March 4. Ralph Richmond, a member of the Ontario Association for Marriage and Family Therapy who has done group dreamwork for more than 20 years, will lead the program. A five-session pass is \$5. Tickets are available at the door or by calling 822-8719.

The Wellington County Multiple Sclerosis Society is recruiting volunteers for its annual Guelph Zehrs Super Cities Walk April 19 and carnation campaign May 9. For more information, call Virginia Bodendistel at 763-3084.



## IN THIS ISSUE

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**6 ATTITUDES** must change if universities are to advance scholarship of teaching, prof says.

**7 COLLEGE ROYAL** is a lifelong tradition for celebrant Jason Ego.

**8 SOCIOLOGY** course helps students make the transition from university to work.

**9 THE LINK** between oxygen and aging is under the microscope in CBS.

Included with this issue of *At Guelph* is an insert from the Bookshelf Cinema.

## College Royal Set

**U**OF G STUDENTS will stage their 74th College Royal open house March 14 and 15. The biggest open house of its kind in Ontario, College Royal involves several hundred students and welcomes about 20,000 visitors annually. The campus will be open Saturday from 9 a.m. to 5 p.m. and Sunday from 10 a.m. to 4 p.m.

This year's theme is "An Invitation to the World." In addition to the ever-popular college displays, the livestock, pet and magic shows, OVC's petting zoo and \$1 milkshakes, don't miss these special events:

- Maple Syrup Days at the Arboretum, daily 11 a.m. to 4 p.m.;
- the juried arts show in Zavitz Hall, open daily; and
- the functional foods tour at Laboratory Services, 95 Stone Rd., open daily.

This year's Curtain Call production is the musical *Fame*, which runs March 12 to 14 at 8 p.m. in War Memorial Hall, with a 2 p.m. matinee Saturday.

College Royal also features a series of talks by U of G faculty throughout the weekend in Room 100 of the Thornbrough Building. Saturday's topics are "The Image of Serial Murder" at 11 a.m., "Captain Climate Change Meets El Niño" at 1 p.m., "Writers on the Road" at 2 p.m. and "Wildlife Conservation Versus Human Strife and Civil War" at 3 p.m. Sunday's topics are "Good Bacteria, Bad Bacteria" at 10 a.m., "Overview of Worldwide Agroforestry Systems" at 11 a.m. and "Better Beginnings, Better Futures" at 3 p.m.



## A DEGREE OF FAMILY PRIDE

Geography PhD graduate Wei Xu of Shanghai was one of about 600 U of G students who graduated during winter convocation ceremonies Feb. 18 and 19. Above, he poses with his wife, Jing, and daughters, Julie and Sally. During the ceremonies, U of G awarded an honorary degree to ecologist Crawford Holling and bestowed University professor emeritus status on retired professors Gordon King, Animal and Poultry Science, and David Erick, Land Resource Science. The John Bell Award was presented to Prof. David Prescott, Economics. PHOTO BY MARTIN SCHWALBE

## University Seeks Campus Input on Funding Gap

*Month-long consultation process turns to students, faculty, staff for advice*

**U**OF G IS ASKING FOR ADVICE on some tough budget decisions that lie ahead.

The administration is consulting widely with the University community this month for ideas on how to handle a projected gap between Guelph's revenues and expenses in 1998/99. (See budget story on page 5.)

The consultation process has included meetings with all dean's councils (deans, chairs and program directors), a presentation to Senate Feb. 10, an open forum with students Feb. 12, an information session with University employees Feb. 17 and numerous meetings with student groups.

At each session, academic and financial administrators have told members of the University community how the provincial government's continuing disinvestment in post-secondary education is creating an ever-widening gap in the ability of Guelph and other universities to meet their financial commitments. They have also outlined some of the

options available to solve the 1998/99 "gap" problem and asked for suggestions on the best route to follow. In total, at least 30 meetings will have been held.

"There is great value in having a number of minds look at these issues," says Prof. Alastair Summerlee, dean of graduate studies and chair of the Enrolment Management Committee. "We want to get input from as many people as possible."

The consultation process will include the President's Budget Advisory Group (PBAG) and the Senate Committee on University Planning (SCUP).

The discussion and recommendations that result from this month of broadly based consultation will be incorporated into U of G's 1998/99 preliminary budget. This budget will then go back for discussion by PBAG and comment from SCUP March 20, to the Finance Committee of Board of Governors March 26 and to Senate March 31. At the suggestion of students, B of G has moved its March 26 meeting to April 2. This allows an extra week of campus consultation on the budget before B of G meets and means more students will be on campus to participate in the process, which is to be completed before final exams begin.

### 'BASKET OF SOLUTIONS' NEEDED

At the Feb. 12 open forum for students, the floor was opened for questions and suggestions on how to manage the projected gap in funding. Proposed solutions included building up the spring semester so it is the equal of fall and winter, offering more distance education courses, advertising arts courses more, getting co-op programs up faster and increasing their number dramatically, partnering programs with Waterloo and Wilfrid Laurier universities and eliminating duplication, asking for tuition fees earlier and then investing them to earn revenue.

Forum facilitator Brian Sullivan, associate vice-president (student affairs), noted the "goodwill and perspicacity" of the roughly 60 students attending. Introduced by Carolyn Barkey, chair of Student Senate Caucus, the presentations that preceded the open segment of the forum painted a grim picture, however.

*Continued on page 4*

## Applications Increase Again

*U of G applicant pool continues to rise, up 15.9 per cent over past two years*

**P**RELIMINARY INFORMATION from the Ontario Universities Application Centre (OUAC) shows that semester-one applications to U of G are up two per cent in 1998. Building on last year's 15-per-cent increase, applications to Guelph have risen 15.9 per cent since 1996, placing U of G ahead of every other university in the province for the two-year period.

Even more heartening was a 1.3-per-cent increase in "first-choice selection" applications, which over the two years have increased by more than 14 per cent, again placing U of G first in the province over the combined period.

"We are absolutely delighted, especially in a year when we are contemplating the option of increasing enrolment," says graduate studies dean Alastair Summerlee, chair of the Enrolment Management Committee. "This increase in applications will allow us some flexibility to bring in

more students without affecting the quality of the academic experience for incoming semester-one students."

The increase for U of G comes as half the universities in Ontario recorded decreases in the number of applications received, according to the February "snapshot" analysis by OUAC.

Summerlee notes that these latest OUAC data, which include applications received for 1998/99, capture only the last two years of an ongoing trend.

"As a strategic direction, we have been working to increase the number of applications we receive and have done so for several years," he says. "It's just that, taken together, the rise has been more dramatic over the past two years. We also have a larger 'market share' of overall and first-choice applications than our size might lead one to predict."

Province-wide, university applications this year are up 2.1 per cent

from 1997, but down overall 0.5 per cent for the period 1996 to 1998.

At the end of January, U of G's new student information system, Colleague, was used for the first time to send letters to 12,600 prospective undergraduate students, acknowledging their application to Guelph. Expected to be fully operational this fall, Colleague will store comprehensive data about each student, including academic, demographic and financial aid information, which will in turn provide faster, more efficient service to students and help the University in course planning and scheduling.

"As we look to the future, the ability to use student data to analyse trends in the applicant pool and student body is crucial to the University's enrolment management initiatives," says Brian Pettigrew, project manager in the office of the vice-president (academic).



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Responses will be accepted by mail until March 10, 1998, at:  
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## SENATE REPORT

### Preliminary look at financial planning presented

**A** TEAM OF ACADEMIC AND FINANCIAL administrators that is consulting widely with the University community on the 1998/99 budget made a presentation to Senate Feb. 10. They painted a picture of growing expenses and stagnating revenues that could, unless steps are taken, create a shortfall of \$5.8 million in U of G's operating budget in the next fiscal year.

John Miles, assistant vice-president (finance), stressed to senators that what was being presented was not an actual budget, but "a very preliminary look at financial planning prior to the budget process." See the full story on page 5.

In his opening remarks to Senate, president Mordechai Rozanski severely criticized a report published by the Toronto Board of Trade Feb. 9. In the report, the board says members of Toronto's business community are extremely concerned about the postsecondary education system, which they believe has resisted change more than any other sector. Among its recommendations, the reports suggests a review of university funding, an overhaul of tenure, deregulation of tuition fees and the establishment of private universities.

The report is full of erroneous statements and misrepresents the substantial restructuring undertaken by universities, said Rozanski. It is also inconsistent with the views and recommendations offered by business leaders at a Chancellor's Summit held in the fall.

#### NEW CENTRE GOES AHEAD

The Senate Committee on University Planning (SCUP) presented a proposal that a multidisciplinary centre for lifestyle assessment, sports medicine and nutraceutical research be established in the Powell Building as a collaborative initiative of the Department of Human Biology and

Nutritional Sciences, Department of Athletics and Student Health Services.

Prof. Kerry Daly, Family Studies, expressed concern that the proposal contained numerous references to students being trained in nutritional counselling and trained for certification, but there had been no consultation on the project with his department, which has the only applied human nutrition program registered in Ontario.

Prof. Jack Barclay, chair of the Department of Human Biology and Nutritional Sciences, responded that the emphasis of the centre was to be sports nutrition, not dietetics. The centre is expected to provide opportunities for experiential learning, skill development and research in the areas of sports medicine, physical therapies, health enhancement and nutraceuticals. It is to be located on the second floor of the Powell Building above the newly relocated Student Health Services.

FACS dean Michael Nightingale and College of Social Science dean David Knight also expressed concern about the lack of consultation with the Department of Family Studies and Department of Psychology. CBS

dean Bob Sheath noted that the centre was designed to reinforce collaboration already going on within his college, but can now serve as a starting point to open up dialogue with other departments on campus.

Following suggestions that Senate put off the proposal until other departments could be consulted, Sheath said it was important to have the centre open by August, when the 1998 Summer Games come to Guelph. Brian Sullivan, associate vice-president (student affairs), added that the Summer Games and the University's upcoming conference season offer an opportunity to bring the proposed centre to the attention of students and the larger community. He told Senate that students are "beating down the doors" to get into a facility like this.

Sheath moved that the proposal be approved in principle, but that consultation be carried out with the applied human nutrition program before any learning opportunities begin. Senators approved the new centre in principle on the understanding that SCUP will ensure that all outstanding issues are resolved and report back to Senate no later than the March 31 meeting.

## IN MEMORIAM

### Political Science Professor Dies

**P**ROF. BILL GRAF, Political Science, a faculty member at Guelph since 1980, died suddenly Feb. 25. He was 53.

A graduate of the University of British Columbia, the Free University of Berlin and the London School of Economics, he taught in Europe and Nigeria before joining U of G. He served as chair of the Department of Political Science from 1990 to 1995.

A specialist in German and African politics, Prof. Graf was the author of six books. His latest, *Political Ideologies from the Enlightenment to the Present*, is due out later this year.

Prof. Maureen Mancuso, chair of the Department of Political Science, says Prof. Graf's death is "a great loss for the department and a great loss in the classroom. Students consistently rated him the top teacher in the department." In 1989, he received the U of G Faculty Association's Distinguished Professor Award.

In paying tribute to Prof. Graf, provost Iain Campbell praised his interdisciplinary commitment, noting his active participation in the Collaborative International Development Studies and European studies programs.

Prof. Graf is survived by his wife, Ruth Wall, and a daughter, Amanda. A memorial service will be held on campus later this semester. The Department of Political Science is establishing a memorial fund for the department.

## Submissions Welcome

At Guelph welcomes letters to the editor, "Insight" columns, information about coming events and suggestions for our "Profile" section. Send details to Barbara Chance at [bchance@exec.admin.uoguelph.ca](mailto:bchance@exec.admin.uoguelph.ca).

## @GUELPH

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## Western Ontario Drama League Festival

The five best dramatic productions of the year will be presented March 16 to 21 at the Guelph Little Theatre, 176 Morris St.

Tickets are \$16 for an individual performance or \$64 for all five. To reserve tickets, call the River Run Centre box office at 763-3000.

An Awards Banquet will be held March 21 at the College Motor Inn. Tickets are \$35.

UNIVERSITY OF GUELPH



ATHLETICS  
REFERENDUM SET

A referendum to support construction of athletics facilities at U of G will be held in conjunction with student elections during the first week of March. The facilities package would include construction of an artificial turf field on the site of the present soccer field, addition of a sports dome for winter use, repair and remodeling of the men's and women's change rooms, and drainage and irrigation of other athletics fields. Previous athletics referenda in 1985 and 1991 approved construction of the twin arenas and swimming pool, along with improvements to the fitness and locker room facilities. If this year's referendum is successful, the new facilities will be available this fall.

## UGFA CALLS FOR NOMINEES

The U of G Faculty Association is calling for nominations for its 1998 teaching awards and academic librarianship award. The association offers seven Distinguished Professor Awards, one for each college, up to two Special Merit Awards for innovation and one award for academic librarianship. Nominations may be made by anyone in the University community. Submission deadline is March 20. Send nominations to the Teaching Awards Committee, Faculty Association Office, Room S35, University Centre. For more information, call the UGFA office at Ext. 2126.

CELEBRATE INTERNATIONAL  
WOMEN'S DAY MARCH 3

International Women's Day will be marked March 3 with a fundraising event for Marianne's Place and Onward Willow at 6:30 p.m. in Peter Clark Hall. Guest speakers are Jassy Narayan, co-ordinator of Onward Willow, and Amy Go of the National Action Committee on the Status of Women. Hosted by Yuk-Yuks stand-up comic Taryn Della, the evening will feature performances of poetry, theatre and satire by the Company of Sirens and music by the Unceded Band. Tickets are \$2 to \$10 on a sliding scale and are available at the door, at the UC Connection Desk or by calling Ext. 6025.

## DEBATORS OFF TO NATIONALS

Members of the U of G Debating Society will attend the national championships in Edmonton March 6 to 8. Guelph's team ranked fourth at the North American Championships at McGill University in early January. Guelph also sent a delegation to the annual Pro-Am Invitational Championships at York University Feb. 13 to 15. The top orator award went to Karim Jaffer, who also tied for first place in individual debating out of a field of 112 debaters. U of G will host the novice championships March 20 to 22.

## Needs-Based Support Boosted

Report recommends comprehensive approach to student aid to ensure accessibility

**G**ETTING MORE MONEY into the hands of students in need is a key objective of U of G's financial aid plans.

Long before the provincial government introduced such initiatives as mandatory tuition reinvestment and the Ontario Student Opportunity Trust Fund (known at U of G as ACCESS), Guelph's Senate Awards Committee (SAC) began moving on its own to increase the amount of needs-based support available for students, says Prof. Alastair Summerlee, dean of graduate studies and chair of the Enrolment Management Committee (EMC).

Until 1995, traditional merit-based scholarships were the basis of 95 per cent of student aid at Guelph, and financial need accounted for only five per cent. By this fall, it's expected that only 52.5 per cent of students awards will be solely merit-based scholarships and 47.5 per cent will have some component of financial need.

Guelph's move towards needs-based support has received a big boost from tuition reinvestment and the ACCESS Fund, both of which are targeted at students with financial need, says Summerlee. The amount of tuition U of G reinvests in student aid varies each year, but in 1997/98, it was \$1.64 million. This September, U of G will realize its first support from the ACCESS Fund when it receives close to \$400,000 in interest on funds that have been invested to date. Of that, \$175,000 will be allocated to bursaries and the remainder will be assigned to college awards committees. These proportions will change to favor bursaries as ACCESS pledges are received.

Of the total ACCESS support pledged, close to 80 per cent is undesignated and only 4.4 per cent comes from corporate donations; the rest is from alumni and friends — some 6,400 donors.

"I am delighted that the money pledged to ACCESS is predominantly undesignated," says president Mordechai Rozanski. "That's something the University really pushed for because undesignated funding can be directed to those most in need."

The president says he's also pleased that U of G's efforts over the years to increase needs-based scholarships have positioned the University to make optimum use of the new funding and ensure that Guelph is as accessible as possible to all qualified students. Total financial aid now approaches \$6 million from all sources — a 406-per-cent

increase over the last decade.

U of G's commitment to accessibility is reflected in a new financial aid policy drafted by a subcommittee of EMC and submitted by SAC to Senate for information Feb. 10. The subcommittee recommends that Guelph take a comprehensive approach to student financial aid to ensure accessibility, maximize resources and maintain its competitive edge.

In its report, the committee notes that U of G currently has a variety of financial aid sources — University operating funds, endowments, annual donations, mandated allocation (tuition reinvestment) and the provincial and federal governments. These sources — often interrelated — have a variety of rules and guidelines, the complexity of which has significant administrative costs for the institution and may affect its ability to distribute student aid fairly and consistently. Every effort should be made to streamline, simplify and centralize the process for allocation, assessment, expenditure and tracking to minimize administrative costs and maximize the amount available to students, the subcommittee says.

The subcommittee was formed last year after SAC began creating a financial aid policy required by the province to participate in the Ontario Student Opportunity Trust Fund. While drafting the policy, SAC noted that U of G has a wide range of financial vehicles and would benefit from a strategic approach to financial aid. The EMC subcommittee, which included three SAC members, was charged with creating a model that ensures students with the most financial need have access to financial aid, that strengthens Guelph's recruitment programs and that minimizes administrative costs.

"What we hoped to do was develop the most compassionate policy that we could," says Summerlee. "We want to put money into the hands of people who can use it most."

The subcommittee was guided by SAC's strategic document, which recommended a move towards needs-based awards. The group also took into consideration changing external factors that are likely to see universities become more competitive at both the undergraduate and graduate levels.

In its report, the subcommittee recommends that U of G's total financial aid package be a combination of merit-based scholarships, needs-based scholarships, bursaries, work/study and

provincial/federal support.

Scholarships awarded for academic merit have long been a mainstay of student financial support. In 1997/98, U of G offered about \$2.3 million in University-wide entrance scholarships and continuing/in-course scholarships. These included U of G entrance scholarships, President's Scholarships and scholarships for graduate students. Another \$1.2 million was provided in college-based scholarships, which are funded through endowments and annual donations and managed by college awards committees. It's estimated that the same amount of money will be available for scholarships in 1998/99.

Bursaries are another mainstay of student support. The report recommends that all of the undesignated portion of ACCESS funds be directed to bursaries. In this way, ACCESS money will be used exclusively to support those in greatest financial need. The report does, however, express concern at the relatively small amount of money available for bursaries for international and out-of-province students and recommends that \$75,000 be allocated from operating funds for 1998/99 to support these students.

Another source of funding for students with demonstrated financial need lies in work/study programs, which support on-campus work experiences for students. In the past year, U of G has increased the amount of money invested in these programs. The report supports a more aggressive use of work/study programs to support students. A small task force has been established to review the opportunities for centralizing and improving the management of work/study opportunities on campus.

"The overall strategy for the subcommittee is to create a basket approach — you put everything in the basket and pick and choose what you fund according to where it's most needed," says Summerlee. The short-term strategy is to emphasize support for incoming students, then as more money becomes available, support for continuing and in-course students will be increased. Additional income from the ACCESS Funds would be directed more towards these categories, and EMC suggests that the restricted portion of ACCESS funds be steered to continuing students. With this in mind, EMC is working on proposals to ensure that students with critical financial need will be assured of support.

## OSAP Changes Announced

**O**N FEB. 13, provincial Education and Training Minister David Johnson announced widespread changes to the Ontario Student Assistance Program (OSAP) to begin with the start of the 1998/99 academic year.

- Postsecondary institutions with loan default rates exceeding 38.5 per cent will be obliged to share part of the cost of defaults with the province (U of G's rate is 13 per cent).
- Students will be considered "dependents" of their parents for a fifth year, extended from the current four years

- of dependency recognized by OSAP.
- Students with bad credit records may not be eligible for a student loan.
- All institutions will be required to provide information on graduation, placement and loan default rates.
- The current loan forgiveness program will be replaced with a grant program paid directly to a student's bank.

A week later on Feb. 20, Johnson called on banks and lenders to develop a more flexible approach to student loan programs, including extending the repayment period to 15 years from the present 10 and allowing qualified

students whose earnings are low after graduation to make lower payments or to pay just the interest on a loan for a fixed period. The ministry has issued a request for proposals to lenders who currently issue Ontario student loans, asking for input on these or other possible options. Responses are due March 25.

University officials were disappointed with both announcements.

More information on these latest changes to the student loan program will be published in the next issue of *At Guelph*.

## PEOPLE

HOCKEY COACH NAMED  
TO WORLD GAMES

Marlin Muylaert, coach of U of G's men's hockey Gryphons, the defending Canadian Interuniversity Athletic Union champions, has been selected as coach of Canada's entry in the 1999 World University Games, to be held in Slovakia in January 1999. He was selected on the vote of 16 league head coaches. Now in his 10th season at Guelph, Muylaert has led the Gryphons to first-place finishes for the past six years in the OUA. He was also a member of the coaching staff of the Canadian team that won the inaugural World University Hockey Championship in 1997.

## HAFI PROF EARNS KUDOS

Prof. John Patterson, HAFI, has been named a 1998 winner of a gold award from the Ontario Hostelry Institute in recognition of his outstanding efforts as a hospitality industry educator. The award will be presented April 21 in Toronto.

PHILOSOPHER ADDRESSES  
BRAZILIAN CONFERENCE

Prof. David Martens, Philosophy, gave a paper this fall on "Why Isn't Knowledge Just True Belief?" at the fourth Brazilian Conference on Analytic Philosophy. It was held at the Centre for Epistemology and Logic at the Federal University of Santa Catarina in Florianopolis.

CBS PHOTO APPEARS  
IN NATIONAL GEOGRAPHIC

A photo of bacteria on the tip of a syringe needle, published in the March issue of *National Geographic*, was provided by Prof. Terry Beveridge and Bob Harris, Microbiology, and Andrew Moore of Laboratory Services. The source of the photo was the Guelph Regional STEM Facility, an electron microscopy facility in the Department of Microbiology that is funded by the Natural Sciences and Engineering Research Council. Recognized throughout the world for its electron microscopy work, the facility has also provided photographs for Discovery TV and the New York American Museum of Natural History.

CIP DIRECTOR WILL  
SERVE AS ASSESSOR

Prof. Jim Shute, director of the Centre for International Programs, has been invited to serve as 1998 benchmarking assessor to the Commonwealth Higher Education Management Service in the field of interdisciplinary Commonwealth universities.

## LONG SERVICE HONORED

Four members of the University community who marked their 25th year of service at U of G in 1997 were inadvertently omitted from a list of honorees in the Jan. 14 issue of *At Guelph*. They are Jan Williams of Human Resources, Becky Morrison, Geography, Richard Phidd, Political Science, and John Benson, Economics.



# Women's Safety Supported

MET funds campus initiatives

**T**WENTY-EIGHT INITIATIVES that promote campus safety for women are receiving funding this year through a \$50,000 grant from the Ministry of Education and Training. This is the sixth year funding has been provided. For 1997/98, the ministry required that grants be used to continue support of existing programs dealing with women's safety, sexual harassment and violence against women.

The following initiatives received support:

#### Human Rights and Equity Office:

- \$3,500 for a pamphlet containing information on resources available at the University to address racism.
- \$4,102 for an International Women's Day event.
- \$6,000 to employ a researcher for Project VISION: Toward a Campus Free From Harassment or Unfair Treatment Based on Sexual Orientation and to create a project advisory group.
- \$5,000 for the campus "No Means No" campaign.

#### Personal Safety Advisory Committee:

- \$1,000 to raise awareness of the committee and its work on campus.

#### Department of Family Studies:

- \$4,282 for Phase 2 of a research project dealing with perceptions, attitudes and behavior of university students with respect to issues of sexual consent and dating relationships.

#### Security Services:

- \$1,899 for self-defence classes for women.
- \$210 for posters on sexual assault, date rape and date rape drugs.

#### Women's studies program:

- \$2,000 for a public lecture series on violence against women.

#### Raithby House:

- \$1,500 to produce promotional materials for the safety line to reach a larger audience.

#### Ontario Veterinary College:

- \$9,160 to address the findings of safety audits carried out in December 1996 and April 1997.

#### OPIRG:

- \$1,250 to add resources to the group's library on women's safety, sexual harassment and violence against women.

#### Planning and Development:

- \$20,000 to renovate the basement of the University Centre. Washroom facilities, locker space and mailbox facilities will be moved and/or modified to reduce risk of assault in these areas.

#### CPRU Radio Gryphon:

- \$2,328 to build a ramp and widen doorways to make the radio station wheelchair-accessible.

#### Student Health Services:

- \$500 for a Doppler machine to identify at-risk mothers early in their pregnancies.

#### Campus Co-op Bookstore:

- \$425 to buy personal security devices for female employees of the bookstore, which is located in the basement of Johnston Hall.

#### First Response Team:

- \$2,469 to publicize the services of the team and to purchase additional two-way radios.

#### Department of Geography:

- \$4,500 to buy window blinds and install crash bars on the main doors of the Hutt Building to ensure the safety of female students.

#### The Wellness Centre:

- \$3,300 to support students presenting social action theatre skits to the first annual Canadian Student Conference on Campus Sexual Violence at the University of Alberta March 20.

#### Women's Resource Centre:

- \$4,000 to purchase resource materials for the centre's archives, particularly related to First Nations women, Jewish women, women of color, women with disabilities and single mothers.
- \$3,440 for Wen-do and dyke defence courses.

#### Munford Centre:

- \$7,800 to buy material for a resource library, to install a viewing hole in the centre's door, to provide training for volunteers and to offer self-esteem workshops for marginalized women.
- \$10,110 to offer introductory awareness workshops and ongoing training for volunteers and participants from the Munford Centre.

#### Campus Safe Walk:

- \$2,230 to add direct-access buttons to Safe Walk on all Bell telephones on campus.

#### Couple and Family Therapy Centre:

- \$4,000 to make physical changes to the external access to the centre and install a panic alarm system for professional service providers.
- \$2,400 to educate and train therapists on issues of violence against women.

#### OUTLine:

- \$3,200 for a source line for lesbian, bisexual, trans-gender and gay women on campus.

#### Central Student Association:

- \$4,000 to develop a long-term funding strategy for the CSA Human Rights Office.

# University Seeks Campus Advice

Continued from page 1

Summerlee said a "basket of solutions" will be needed to close the \$5.8-million gap because no single solution — whether it be raising enrolment, increasing tuition or controlling expenditures — would be enough.

President Mordechai Rozanski laid the blame at the feet of the provincial government.

"The truth is that we are still going to end up going to the Board of Governors (in April) with a shortfall no matter what we do," he said. "That's because the number one issue here is that successive provincial governments have abandoned their funding responsibilities. The problem won't go away until universities become more fully publicly funded, and raising awareness around this issue continues to be our ultimate goal. We cannot have a quality and accessible university system when we rank 10th out of 10 provinces in per-capita funding."

Graduate Students' Association representative Christine Oro called for tuition fees to be frozen at 1996/97 levels. The average debt load of students leaving university in Canada is \$25,000, she said, and higher education is becoming inaccessible. Concluding her presentation, Oro said: "I would encourage the administration to continue its new-found respect for student insight into university affairs, to work more constructively with students in the boardrooms as in the classrooms, rather than on opposite sides of the courtroom."

One student recounted how she had begun a science program in 1992, but not liking it, dropped out with a \$13,000 debt load. Later she decided to come back to school, but because of the "phenomenal" increase in tuition, must maintain a full-time day job and take her arts degree part time through evening courses.

She recommended that U of G offer a greater and wider selection of courses for part-time and evening students. That way,

the University would attract more mature students, who would not need to take up residence rooms (limits on the number of residence rooms available being one challenge in trying to increase enrolment by substantial numbers). To illustrate her point about a lack of evening courses, she noted that although she is an arts student, most of her electives will be in the sciences.

Although some students seemed to favor some corporate involvement on campus as a way to generate revenue and others clearly did not, the overall message was that the quality education offered at U of G must not be allowed to suffer and that the University must look for innovative ways to attract new resources.

Rozanski said Guelph has had to generate new funds to forestall a slippage in quality and facilities, and he acknowledged the tremendous help of U of G alumni who, through the ACCESS Fund and Alma Mater Fund (to name but two), have "helped enormously."

Administration representatives voiced their appreciation for the creativity and resourcefulness of the suggested proposals, and noted that many of the ideas discussed were or would be under consideration.

The good news was that an additional consultative mechanism involving students is being established to closely follow these critical issues. The Special Working Committee to Review the 1998/99 Operating Budget will be made up predominantly of students and will make recommendations to the President's Budget Advisory Group in parallel with the Enrolment Management Committee. Members of the working committee will have an opportunity to question the options being proposed to make up the budgetary shortfall and suggest additional options. Nancy Sullivan, vice-president (finance and administration), will chair this group.

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# Preliminary Budget Picture Shows Big Gap Looming for 1998/99

*Solution lies in combination of approaches involving expenditure controls, savings, revenue increases*

**THE CRUNCH IS ON.** With expenses rising and revenues lagging behind because of continued government disinvestment, U of G could be facing a gap of about \$5.8 million in its operating budget in the 1998/99 financial year, given the results of some very preliminary financial modelling.

At this point, the shortfall figure is based on a lot of unknowns, says John Miles, assistant vice-president (finance), but it's also based on some stark realities. A freeze in government funding following years of cuts. Increased personnel costs. Growing operating expenses such as utilities. The costs of restructuring.

For the purposes of establishing a starting point in developing the 1998/99 preliminary budget, the University is assuming that Ministry of Education and Training (MET) operating grants will be frozen at 1997/98 levels, except for a \$400,000 reduction in the pay equity grant, says Miles. This scenario is based on a number of preliminary assumptions and the University's best estimate of the impact of the provincial government's December 1997 economic statement, he says.

## MET GRANT ASSUMED SAME

"We're assuming that our MET operating grant, exclusive of pay equity, will be the same as in 1997/98, although that's by no means certain given the vagueness of the economic statement. It should be remembered that our MET grant has been cut by \$26 million in the last four years. We're also assuming that funding from the Ontario Ministry of Agriculture, Food and Rural Affairs (which dropped \$6.7 million between 1993 and 1997) will remain stable."

The planning model assumes for now that all other revenue components of the budget, including tuition revenues, will remain at their 1997/98 budgeted levels, he says. No assumptions about 1998/99 enrolment levels or fees have been made, in anticipation of recommendations to come from the Enrolment Management Committee (EMC).

Based on these preliminary assumptions, total MET fund operating revenues would be about \$150.6 million in 1998/99 — \$87.3 million from the province, \$43.6 million from tuition and \$19.7 million from other institutional revenues and departmental revenues (such as OVC's Veterinary Teaching Hospital revenues, non-credit courses and laboratory services).

## FUNDING CUTS ARE THE NORM

Funding cuts to Ontario universities have become the norm in the 1990s. In 1993, Guelph's MET grant was \$114.5 million, 71 per cent of the MET operating budget. In 1997/98, the MET grant is down 23 per cent to \$87.8 million, 58 per cent of the MET operating budget. (If the OMAFRA and MET operating revenues are combined, the MET grant

is about 47 per cent of the total.)

On the expenditure side, preliminary cost assumptions point to an increase of \$4.5 million in 1998/99, from \$172.7 million to \$177.2 million. The bulk of the increase lies in personnel costs — salaries and benefits — which constitute about 80 per cent of the operating budget. In 1998/89, personnel costs are projected to rise from \$134 million to \$137.3. That projection is based on specific estimates for employee groups with multi-year contracts, a general planning estimate for all other salary components of the budget, and adjustments for known changes to statutory benefits.

The remaining \$1.2 million of the projected expenditure increase lies in a number of non-personnel costs such as utilities, graduate student aid, library acquisitions and deferred maintenance. Miles says this figure contains no provision for general inflation for units' operating expenses, but does assume a five-per-cent increase in utility costs, a two-per-cent increase for library acquisitions, \$100,000 for deferred maintenance and an increase of \$300,000 in

allowed the University to access \$5 million in savings to help meet the 15-per-cent cut in government grants in 1996/97 rather than through further base cuts. Annual cost of the SERP repayment is \$2.2 million. The 1998/99 CSR repayment — the second of two equal payments — is \$945,000.

The model also assumes that Guelph will continue to realize institutional cost recoveries of \$19.9 million for services provided (utilities, financial, etc.) from OMAFRA and ancillary operations — the same as in 1997/98.

The final factor in the mix is a pension contribution holiday. In 1997/98, all U of G employee groups agreed to an employer pension contribution holiday, which meant the University was not required to make its scheduled annual contribution to the plan. As a result, \$4.1 million that would normally flow into the pension plan from the operating budget remained in the budget as one-time savings to offset the costs of negotiated salary increases incurred in 1997/98. No pension funds were used.

Rozanski. "This institution has already made tremendously painful decisions on cuts that have affected many people."

The president holds only modest hope that any new funds will come from the provincial government, aside from some possible one-time strategic investments that he and colleagues at other universities are pushing for.

"The province hasn't changed its perspective on funding," says Rozanski. "It's unlikely that this government will change its continuing program of disinvestment, although we must continue pressing the issue. Our only long-term solution is an increase in public funding after a close to 25-per-cent cut over the last four years."

He points to the province's most recent announcement that, for the first time, OSAP funding will be bundled with postsecondary transfer grants, making one dependent on the other. This means that postsecondary institutions' operating grants may need to fund the cost of any increased OSAP costs, including the burden of loan default, unless universities are successful in their pres-

sider our comparative cost situation in relation to other universities seeking and attracting quality students.

Increasing enrolment is another option that could raise revenue, but it has costs associated with it, says Rozanski. These may include heavier workloads for faculty, staff and graduate teaching assistants, and pressures on classroom space, laboratories, residences and food services.

## WILL MAKE RECOMMENDATIONS

These issues of tuition and enrolment increases are being considered by EMC. This committee will make recommendations to the President's Budget Advisory Group, which will subsequently consult with the Senate Committee on University Planning. EMC is chaired by Prof. Alastair Summerlee, dean of graduate studies.

Ken Grant, director of institutional analysis and planning, has presented a net incremental tuition revenue matrix that includes a number of options — raising tuition but not enrolment, raising enrolment but not tuition, raising both, raising neither — and examines the financial impact of each.

"According to our current assumptions, if we do nothing — don't raise tuition, don't increase intake — we will lose about \$812,000, which would be added to the projected \$5.8-million shortfall," says Grant. That's because a decision made several years ago to cut undergraduate intake levels at U of G is still flowing through the system, resulting in lower total student numbers.

## ONLY A PARTIAL ANSWER

At most, if Guelph increases enrolment by 400 above 1997/98 levels and tuition fees by the maximum of 10 per cent, it will gain about \$3.1 million, net of the government's 30-per-cent required set-aside for student aid. Whatever occurs, choices within the matrix offer only a partial solution and do not fill the \$5.8-million gap, says Grant. Clearly, the answer cannot rest with enrolment and tuition alone and must include expenditure controls and other revenue generation, he says.

Grant cautions that any move Guelph makes to increase student intake should not be translated into wholesale decreases in admission averages. "There's enough evidence that although lowering averages can increase intake in the short run, retention rates in the longer term may be adversely affected."

A variety of other ways of increasing revenue are on the table for discussion, says Rozanski. These include raising ancillary fees for services such as parking, developing new activities and fund raising.

"The final recommendations on dealing with the projected budget gap must involve a combination of approaches involving expenditure controls, savings and revenue increases," he says.

*"It's unlikely that this government  
will change its continuing program  
of disinvestment, although  
we must continue pressing the issue.  
Our only long-term solution is an  
increase in public funding."*

Guelph's contingency account (due to the many uncertainties in grant funding). Also included in non-personnel costs is \$235,000 for graduate awards in the second year of a three-year commitment to increasing student aid following the elimination of the graduate subsequent fee in 1996/97.

In 1998/99, U of G must also pay out more than \$3 million to repay one-time costs incurred through the special early retirement plan (SERP) and Common Sense Revolution (CSR) restructuring programs, through which Guelph's complement of regular full-time employees was reduced by about 20 per cent. U of G had originally planned to repay the SERP deficit by 1998/99, but government cutbacks in 1996/97 forced the University to ask Board of Governors for approval to extend the repayment plan to 2003/04. This

This year, the initial assumption is that U of G will again take a pension contribution holiday and retain \$4.1 million in the budget to offset ongoing compensation increases on a one-time basis, says Miles. But this is subject to the performance of the pension plans and employee negotiations.

## NO EASY SOLUTIONS

There are no easy solutions to a \$5.8-million funding shortfall, says president Mordechai Rozanski. Basically, the options consist of cutting expenditures, enhancing revenues or a combination of both.

"Although we will have to plan for expenditure controls, savings, one-time solutions and targeted cuts, I am loath to begin our initial financial modelling process with the assumption that we will have an upfront across-the-board base cut," says

sure to reverse this.

This announcement comes on top of years of provincial disinvestment in universities, says Rozanski. "And the devastating impact of those cuts is revealed in the financial realities we confront today."

Beyond expenditure controls and savings, revenue enhancement involves a number of choices, including new activities, ancillary contributions, enrolment increases and tuition increments.

"But I am also very reluctant to accept recommendations that would move us to the maximum of what we are allowed on tuition increases," says the president. "U of G has a tradition of not going to the maximum. We believe in accessibility. I don't want to see the funding problem of government disinvestment carried totally on the backs of our students. And as a residential institution, we must con-



# THE SCHOLARSHIP OF TEACHING

*"If we are going to advance the scholarship of teaching, our collective attitudes must change and we must seriously challenge the status quo."*

BY SANDY MIDDLETON

*Editor's note: This is an edited version of an article by Prof. Sandy Middleton, Zoology, which appeared in the November 1997 issue of Teaching and Learning in Higher Education.*

THE DISCUSSION OF scholarship, particularly that relating to teaching, is not high on the national agenda. Perhaps this results from the belief that because we say teaching is important, we delude ourselves into believing that we do it well and there is really no need for the scholarly discussion of it. As a result, most initiatives are limited in their scope and are restricted to specific campuses. We still have a long way to go in our understanding and acceptance of the scholarship of teaching. Yet, if we stop to consider the scholarly development of our own disciplines, the task should not be difficult. What we need is a commitment to it.

The basic steps and processes involved in the scholarship of discovery (at least in the sciences) and teaching are similar. In general, the different steps through which our research developments are familiar to us, but few have seen the parallels with what happens in teaching. If we want to demystify and encourage the scholarship of teaching, it might be useful to examine the similarities between the scholarships of discovery and teaching. By using this comparison, I do not mean to suggest that the research model is the only one, that it is the ideal and that it can simply be transferred from one discipline to another. Instead, I use the comparison because it takes advantage of a process that is very familiar to many of us.

In the scholarship of discovery, most of us recognize the need for discussion, exchange and dissemination of our ideas. This is done in one of four ways: direct, immediate and informal interaction with colleagues; attendance at special disciplinary symposia or meetings of professional societies, where results of scholarly work are presented and discussed; publication of our work, preferably in refereed journals; and, recently, through the various electronic media that have become available. Within our disciplines we move unquestioningly among these familiar approaches. But when it comes to our teaching, we are reluctant to open up the discussion, let alone attend meetings or publish on pedagogical work, even though we accept the essential roles that discussion and publication of ideas play in academic life. The reason for this reluctance is not clear, but it may stem from a fear of exposing our deficiencies as teachers. Whereas most of us have emerged from a long period of schooling in the research methodologies of our disciplines, few of us can say the same of our development as teachers.

If we are serious about fostering the scholarship of teaching, we must begin to apply to it those same activities that are integral to our disciplinary research. Many institutions have tentatively entered into the first phase by attempting to open up the discussion of teaching and learning issues. This is manifest in the workshop programs established on many campuses, the accumulating number of courses on pedagogy available to our graduate students, sessions for new faculty members, and the development of peer consultation. We are gradually beginning to challenge the culture that has made teaching such a private and secretive endeavor. On a comparative basis, however, these activities still involve a small percentage of those who teach. Once again, we must ask why? Is it because such activities fall outside our own disciplines and are therefore seen as being irrelevant to our scholarship? Or is it because they often concentrate on the techniques of good teaching, that they appear to trivialize teaching as a scholarly enterprise? The answers are not immediately clear.

The second phase of scholarly work, the participation in meetings and symposia, is a logical development of phase one. When it comes to our academic disciplines, we readily find the time and resources to participate in such meetings because we see our involvement as being essential to keeping in touch with developments in the field and with our colleagues, and in maintaining our professional expertise and credibility. By contrast, when it comes to teaching, there is patent disinterest in attending scholarly meetings. This disinterest is so widespread in tertiary institutions that, at times, it is even difficult to find a senior administrator who is prepared to bring official greetings on



behalf of the host institution to the delegates at such meetings, a courtesy that is traditional at most academic meetings. Some have suggested that poor participation is related to a lack of institutional support (e.g., funding) that makes attendance at teaching meetings a costly venture. This may be part of the problem, but it does not explain poor participation by members of the host institution. Alternatively, it reflects a statement by the late Ernest Boyer, a renowned U.S. educator, that teaching is considered secondary at best, with the implication being that those who aspire to teach or who enjoy it are not good scholars or intellectuals.

In the third phase of scholarly work, the publication of articles in refereed journals, the record for the scholarship of teaching is even more dismal. A recent article about disciplinary journals in pedagogy identifies some 50 discipline-specific journals that are devoted exclusively, mostly or occasionally to matters of pedagogy. Only 14 are devoted exclusively to college-level teaching, and these are viewed as weak siblings of the favored and prestigious research journals. When asked about publication in them, many faculty members said that such publications didn't count and that writing about pedagogy wasn't regarded as legitimate scholarship. Thus, the perception that the scholarship of teaching is a second-rate activity is reinforced.

Isn't it ironic that, at a time of dramatic and rapid change in education, we have so little interest in participating in the scholarly discussion of it? Within the university, we still seem to be content to muddle along, much as we have in the past, deluding ourselves into believing that we know how to teach effectively, even with the new tools of the computer age. Some may argue that I misrepresent the case. But how else can we explain the indifference? I suggest we can still get away with it because, despite all the fine rhetoric that surrounds the teaching enterprise (e.g., institutional mission statements) and despite societal pressures to be more creative in how we deliver our curricula, we still don't have to take teaching seriously. As a recent Houghton Mifflin company advertisement puts it: "Education is the only thing some people are willing to pay for and not get." We can and must do better.

Where do we go from here? If we are going to advance the scholarship of teaching, our collective attitudes must change and

we must seriously challenge the status quo. We recognize the reality that most faculty members have been appointed to their present positions on their prowess as scholars of discovery. Accordingly, they are committed to their disciplines and what they must do to remain viable within them. For the majority of faculty members, serious engagement in the scholarship of teaching is, at best, of secondary interest. This will remain so as long as the perception persists that teaching doesn't count and while the incentives to become engaged in the scholarship of teaching remain uninviting.

Simply put, even if they were interested in it, many people see involvement in the scholarship of teaching as too risky. Some fear, for example, that it will take them into new and unfamiliar territory that will deflect time from scholarship in their chosen fields and result in reduced scholarly output (publication), diminished status in the eyes of their colleagues (peer review) and threats to their future support (grants). New faculty fear that too much emphasis on teaching may jeopardize their chances of securing tenure — a not unjustified fear given past experience. The fact remains, however, that teaching and learning remain at the core of a university's being. How much longer, therefore, can we continue to tolerate a climate in which teaching — and its scholarship — is still struggling to gain the recognition it deserves?

Surely we have it within our collective capabilities to effect change. I suggest that if tertiary institutions don't take a more proactive approach to teaching and learning themselves, then someone else will. As the 1991 Smith Commission found, there are signs that society wants, and may be prepared to demand, more efficient teaching from its tertiary institutions. There are within our universities committed individuals who believe deeply in the cause of teaching and who have done much to champion its cause, despite the risks and personal costs. But the faculty alone can only do so much to change the culture that will lead to a return to — and acceptance of — the scholarship of teaching. If individuals are going to be encouraged to participate in this scholarship, they will need the support of their academic colleagues and their institutions, and tangible assurance that their efforts in this area will be evaluated and rewarded appropriately.

Therefore, academic leaders (chairs, deans, vice-presidents, and presidents) also have a vital role to play in promoting the climate under which the scholarship of teaching can flourish. It is they who make many of the critical decisions that ultimately affect pedagogy. Accordingly, academic administration can do much to narrow the apparent gap between what we claim to value in the teaching enterprise and how we actually encourage, evaluate and reward it. All too often, however, their decisions with respect to teaching and teaching-related issues are motivated by expediency rather than based on well-informed and carefully reasoned positions. As scholars, they would not tolerate this approach in their own disciplines, so how can they condone it with respect to the core function of their institutions?

As the Smith Commission noted, at a time when the pressures on tertiary institutions to be more effective in what they deliver to society are increasing, they can ill afford to undervalue teaching and its scholarship. An effective way for academics to become familiar with how the pressing and practical issues of teaching are being tackled by committed practitioners, and to keep abreast with the latest pedagogical developments, is by attending teaching and learning conferences. Yet, in general, it is senior academics and administrators who are most noticeable by their absence at such meetings. As Concordia professor Ron Smith has suggested, participation by our academic administrators in teaching conferences would send a strong message to the institutions that teaching and learning are important and are being taken seriously. Further, the free interaction among participants from all levels of the university in a mutually supportive and stimulating atmosphere would do much to create the spaces where we can talk about our teaching and, through these conversations, begin to build the scholarship of teaching.

Surely, participation at meetings on teaching and learning involves little risk for anyone. It is an obvious and easy next step to take if we really want to make teaching count.



# GRAB YOUR PARTNER AND HEAD FOR COLLEGE ROYAL

1998 celebrant puts on his square-dancing shoes

BY MARY DICKIESON

**W**HEN KEVIN EGO came to College Royal as a youngster, his parents always made a beeline for the square dance competition because they had "bowed to the corners" when they were Guelph students in the 1960s.

Young Kevin was much more interested in the magic show and the dog show, and if he could work it in, he'd make two trips to the Food Science Building for milkshakes.

Funny how things work out.

This year, Ego will attend every College Royal event as celebrant, but says he's most anxious to "do-si-do" in the square dance competition. A four-time competitor, he has been square dancing since he began his own undergraduate studies at Guelph in 1994. He explains his change of heart from childhood days by admitting that square dancing "is a lot more fun to do than it is to watch."

Now looking at College Royal from a student's point of view, Ego says the whole week of events is more fun if you get involved. In past years, he has shown livestock, eaten Jell-O, anchored a tug-of-war team, joined the model search and discovered that his aim in the pie-throwing contest wasn't as good as his opponent's.

Last year, he worked at the Jr. Farmers display, a tricycle tractor pull for the youngsters who dragged their parents away from the square dance event. This year, his OAC '98 classmates talked him into running in the College Royal celebrant competition.

Ego says he's already had a lot of fun, and the open house

weekend is still two weeks away (March 14 and 15). He and the other celebrant contestants have been working with the organizing committee and visiting classrooms to tell other students how they can get involved.

"The faculty I've contacted have been very supportive of College Royal," says Ego, who likes to tell everyone how unique it is. "No other university has an open house weekend like College Royal. It's a good way to show off our campus to the public and a good way for students to get involved in campus life."

Getting involved is something that comes easily to Ego. He grew up near Orillia, where his family operates a greenhouse,

nursery and market garden business. He devoted 15 years to the Boy Scouts organization and was active in 4-H clubs. He followed his parents, Laury and Lorraine, both 1967 graduates, and sister, Kristen, who received a B.Sc. (Agr.) at winter convocation, to Guelph. A younger brother, Bryan, is in Grade 11.

At U of G, Ego has served on the OAC '98 class executive, was president of the Jr. Farmers club and is active in the Student Federation of OAC. He's a key organizer of the 1998 Guelph Challenge, an agricultural competition that includes research paper presentations, debates and problem-solving team events. He represented Guelph at last year's National Agriculture Challenge in Saskatchewan. In addition to dancing and now coaching a first-year square dance team, he's an avid intramural athlete.

Now in his fourth year in natural resources management, Ego is taking an independent research course in which he's measuring weed growth in relation

to temperature as part of a larger project under the direction of Prof. Clarence Swanton, Crop Science. Ego plans to enter Guelph's master's program in crop science this fall, but says his career plans are still growing — maybe industrial research, maybe an academic career, maybe returning to the family farm business.

In the meantime, he's taking full advantage of the opportunities available to him at U of G and encourages other students to do the same. He says College Royal is a good place to start; he knows from experience that it's more fun dancing than just tapping your toes.



Photo by Martin Schwilke

## Carving out a Vision for the Future

A new body of work by College of Arts sculptor parallels the way society is changing

**A**NEW BODY OF WORK is being "carved out" — literally — by U of G fine art instructor Stephen Schofield.

A sculptor with a twist, he describes his works as "about the body," and his choice of materials parallels the way society has changed around him.

"We tend to think about the body as being armored or indestructible," he says. "Part of the shift in society is to show a vulnerable side of the body."

Schofield says his art differs from traditional figurative sculpture, which was based on the work of the 16th century and Renaissance period. Back then, the body was measured and constructed according to conventional perceptions of men, women and their environment.

As is apparent in Schofield's sculptures, there has been a movement away from heavy materials such as bronze and marble. He believes society has always valorized the solid, the massive and the por-

trayal of the male body. And it was the deconstruction of this ideology that led him to seek more malleable materials such as silk and taffeta.

These materials accurately mimic the characteristics of human skin — its porosity, strength and vulnerability. They allow Schofield to express an intriguing new image of the human body, especially when portraying the male body.

Schofield looks at people from both a whole-body level and cellular level. To this end, he portrays whole bodies or just its segments. He also makes clear reference to clothing in his sculpting. By making unidentifiable materials look vulnerable, he enforces the concept of human vulnerability.

Schofield enjoys the challenge of making strong materials look weak — and weak materials look strong. He's proving that a subject's strength doesn't have to be based on the weight and mass of a material.

Schofield says there are many uses for three-dimensional skills, such as packaging, clothing and

computer imaging. He thinks it's essential that students understand how negative space works. Once they understand these concepts, they can develop explorative skills that are a pivotal point for creative endeavors and are essential for a career in fine art or possibly commercial industry.

"We live in a packaged society, but few of us have three-dimensional skills," he says. "We are more adept at two-dimensionality; not many of us can gauge the strength of steel, leather or concrete."

Eight of Schofield's sculptures are part of the permanent collection of the National Art Gallery in Ottawa and were on exhibit for much of the past year.

He is currently working on two large installations for this summer's International Biennial at the Centre international d'art contemporain in Montreal. The pieces are contrasts in heavy and light — one uses fragile materials such as silk; the other is cast in cement fondue.

BY VICKI SHEARER  
OFFICE OF RESEARCH



Fine art instructor Stephen Schofield works on a sculpture in France.



# Is There Life After Graduation?

CSS course prepares students for transition from university to the world of work

**Y**EARS BEFORE it became fashionable to wonder at the value of a degree in the labor market, Prof. Fred Evers, Sociology and Anthropology, was already researching how academic skills and knowledge could be turned to a graduate's advantage once in the workplace.

The result is the premiere this term of Evers's fourth-year seminar course titled "Transition from School to Work."

Evers says the course is quite unlike anything else. "It's a capstone course, but beyond the typical final-year project because it deals with learning about workplace skills, résumé building in anticipation of the job hunt and packaging an individual student for the workplace."

Students prepare practical tools, including a skills portfolio and a skills notebook, and as individual members of teams, they complete an "action sociology project" that asks: "Can you take your four years' worth of schooling and apply it to solve a problem in Canadian society?"

The bottom line is getting students ready for the workplace, a growing institutional role, says Evers, who notes that some U.S. state universities are legislatively required to document the preparedness of their graduates.

"We have a responsibility to do this," he says. "The reality is that when our students leave here, they want to get a job. The project I give them is still sociology, but the pedagogy is in

keeping with what they'll find in the workplace."

Prof. Ron Hinch, chair of the Department of Sociology and Anthropology, agrees. "At a time when universities increasingly are being asked to justify what they do and why they do it, this course provides a method by which students not only recognize and use the skills and knowledge they have gained through their university studies to help find a rewarding career, but also to recognize that what sometimes seemed to be abstract or remote concepts or skills have a direct connection to what they can and will do in their future careers. This is an intriguing merger of academic research and the application of that research."

Evers claims his research and the pedagogy involved are applicable and adaptable across the disciplinary spectrum. In fact, it's already been used elsewhere on campus — in OAC's "world of work" curriculum, part of Vision '95.

Andre Auger, director of the Counselling and Student Resource Centre, says the "world of work" program couldn't have happened when it did or as well without Evers's research.

"We had been actively searching out ways to put together the program," says Auger, "then we read Fred's work and we said: 'This is it. This is what we've wanted.' Our work-preparedness curriculum was ready

to move in for Vision '95 because of Fred's research."

Auger says he also used Evers to "bounce off" material as the OAC curriculum was fine-tuned.

Hinch hopes there will be more spinoffs. "This is the kind of course that should be more widely available, and it also demonstrates that to apply scholarly knowledge to the real world does not mean that one must sacrifice scholarly integrity. The two actually go hand in hand."

Evers is recognized as a leader in Canadian research on the transition to the workplace. His roots in the subject go back nearly 15 years. Beginning in 1984 while he was at the University of Western Ontario and continuing from the following year once he was established at Guelph, Evers collaborated with Western researcher Jim Rush on a program called "Making the Match," the first phase of which was commissioned by the Corporate-Higher Education Forum to explore the adequacy of university education for corporate employment. A second phase investigated the skills development process from the early years of university to the 10-year point in individuals' careers in Canadian corporations.

From this research, Evers developed "the four base competencies" in the transition to the workplace, which he defines as mobilizing innovation and change; managing people and tasks; communicating; and managing

self. They serve as the basis for his "Transition from School to Work" course and also part of a book that he, Rush and fellow researcher Iris Tiemessen have coming out this August, *The Bases of Competence: Skills for Lifelong Learning and Employability*.

As much as anything, Evers's course prepares students mentally for what they might find out in the "real world." Says Hinch: "The course allows students to take stock of what they have learned and how that knowledge can be packaged in a way that makes the transition from school to work a little less threatening."

Adds Evers: "Students today are more savvy about the problems of life

after graduation, but they're not necessarily better equipped. The recognition is there that the workplace has changed a great deal, but students are not always aware of how it has changed. Yes, the workplace is increasingly broken down into teams, but graduates need the skill of how to manage oneself. You're more on your own these days, and you need to be able to cope on your own in the workplace."

Well, not completely on your own. Evers plans to check in with the students in a year to see how they've managed since graduation. And he hopes to run his course again during the winter semester next year.

BY ALEXANDER WOOLLEY

## Summer Wages Subsidized

**H**UMAN RESOURCES Development Canada (HRDC) is offering a program of wage subsidy for students this summer. The career placement program lasts a minimum of six weeks and a maximum of 16.

Jobs created for students must be in addition to any summer jobs normally offered and must be jobs that would not be available without assistance from this program.

Applications will be evaluated on the basis of the extent to which proposed activities will prepare students for future employment, the value and

usefulness to the community of the activities and the extent to which the employer is prepared to contribute to the project.

Applications are available from the Office of Research, outside Room 224 in the Reynolds Building, and must be approved by the Office of Research by March 25. Individuals are responsible for getting their applications to the sponsor and must be postmarked by 4 p.m. March 27. Applications received after this date will not be accepted for funding, and faxed applications are not acceptable.

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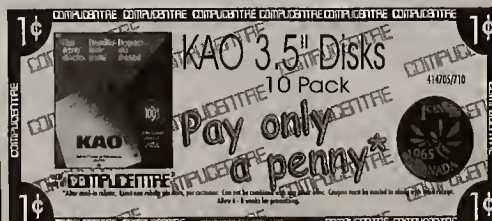


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COMPUTER CENTRE





Tony Parkes, left, and Prof. Art Hilliker hope to identify the basic mechanisms of aging. PHOTO BY KERSTI KAHAR

## Aging Is in the Air

CBS researchers examine link between oxygen and aging process

**A**BABY'S FIRST BREATH marks its first step towards aging — and researchers in the College of Biological Science want to know what role oxygen plays in that process.

Prof. John Phillips, Prof. Art Hilliker, postdoctoral fellow Tony Parkes and technicians Kim Kirby and Brenda Dwyf, members of the Department of Molecular Biology and Genetics, are collaborating with University of Toronto researchers Andrew Elia and Gabrielle Boulianne to identify critical sites in the human body that are highly susceptible to reactive oxygen (RO) damage.

As the name suggests, RO molecules are highly reactive forms of the oxygen molecule. Generated daily by aerobic metabolism, they are dangerous and unavoidable initiators of biochemical oxidation events — the old-age changes that occur in adult life.

"We hope to identify the basic mechanisms of aging," says Phillips, "and if what we learn has some applied value or application, it would be a bonus."

The nervous system, particularly motor neurons, comes under attack in diseases of the elderly. Losses of motor neurons in the brain and spinal cord are said to be the leading problems of aging. These and other effects of old age might be the sum

of numerous cell types being damaged, or they might be caused by changes to one or a small number of critical cell types affected by oxygen.

"Oxygen is an interesting molecule," says Phillips. "It's a product of photosynthesis and is vital to life, but it's naturally toxic. It's a real paradox. Organisms had to learn to adapt to an oxygenated environment and be defensive, but eventually the toxic aspects catch up to them, and the result is aging."

Phillips and Hilliker's team has spent many years conducting genetic analysis of oxygen metabolism, but it's only recently that this work developed some relevance to aging. Phillips stresses that their work is unlikely to make it possible for people to live longer. But a clearer understanding of aging may make it possible to reduce the onset and rate of physical decline and the onset of such old-age diseases as senility, Alzheimer's, Parkinson's and amyotrophic lateral sclerosis.

To determine if RO metabolism in motor neurons is, in fact, an important factor in aging, the researchers have generated genetically altered *Drosophila* fruit flies expressing enzymes specifically in motor neurons. These enzymes are the cornerstones of RO metabolism in aerobic oxygen-requiring cells,

including those of humans. Bolstering the flies' nervous systems in this manner results in a dramatic increase in lifespan.

The researchers use fruit flies because at the cellular level, where the oxidative damage that leads to aging occurs, the flies live by the same basic biological properties and principles as humans, but their lifespan is short enough to see results quickly. Selection experiments have generated long-lived strains of *Drosophila* exhibiting enhanced levels of RO metabolism and resistance to oxidative stress. Compelling evidence has come from the fruit fly manipulations, clearly implicating oxygen radicals and the nervous system as being of major significance in the aging process.

"Old age has a degree of roorbidity attached to it," says Phillips. "As people grow old, their physical and mental capacities diminish, so a useful goal of any research would be to reduce the morbidity of aging."

Much of this research has been published in the *Proceedings of the National Academy of Sciences U.S.A.* This research is sponsored by the Medical Research Council of Canada and Natural Sciences and Engineering Research Council.

BY VICKI SHEARER  
OFFICE OF RESEARCH

## Piecing Together the Puzzle of Colorectal Cancer

OVC biomedical scientists assess what factors affect susceptibility to colon cancer

**T**HE KEY TO UNDERSTANDING susceptibility to colorectal cancer — cancer of the large intestine and rectum — may be found in what our bodies are lacking.

Prof. Gordon Kirby and technician Heather Barker of the Department of Biomedical Sciences are assessing what factors affect susceptibility to colorectal cancer. Kirby's approach involves determining if there is a breakdown in the body's defences against carcinogens by examining colon cancer tissue samples provided by Dr. Lesley Alpert of the Jewish General Hospital in Montreal.

"Colorectal cancer is a big problem, especially in North America, where diet is considered a major risk factor," says Kirby. "It's the third most frequently occurring type of cancer worldwide and the third most common cause of death from cancer in Canada."

Colorectal cancer has been associated with diets high in meat and fat and with dietary exposure to carcinogens. Charcoal-broiled foods are especially troublesome because carcinogens are produced during the cooking process.

Fortunately, the human body has developed specific defences to protect against these carcinogens. In particular, enzymes lining the gut wall function to detoxify them. The glutathione-S-transferases (GSTs) are one class of these enzymes. Of the GSTs, Kirby is focusing on the Mu class. These enzymes are polymorphic, meaning they aren't found uniformly in the human population.

The gene that codes for the GST-Mu enzyme is absent in half of the Caucasian population and in most patients with colon cancer. Kirby wants to discover how GST-Mu gene expression is lost and the implications of this loss in colon cancer development.

To do this, he is studying inflammation of the colon (a condition called colitis), which is frequently found with colorectal cancer. He wants to see if colitis is involved in the reduction of GST-Mu enzyme levels. Because carcinogens cause mutations by damaging DNA, Kirby is coroparing the level of GST-Mu enzymes in the colon with the level of mutations in genes associated with the development of colorectal cancer.

"By understanding how the process works, we can try to identify ways to prevent cancer," he says.

For example, susceptible individuals with low GST expression might reduce their risk of developing colorectal cancer by altering their diet. A diet high in yellow-green vegetables can increase GST enzyme levels and help reduce the cancer's incidence.

"This is not the only approach to controlling colon cancer," notes Kirby. "The process of cancer development is very complicated; there are many other factors involved, including enzymes that repair DNA. My research is in its early stages and is a small piece of the puzzle."

This project is sponsored by the Medical Research Council of Canada.

BY SUSAN CONNELLY  
OFFICE OF RESEARCH

### CORRECTIONS

In the Feb. 11 issue of *At Guelph*, the cutline accompanying the photo about a recent donation to the Food Science Building from Maple Lodge Farms omitted the name of Prof. Rick Yada, acting chair of the Department of Food Science. In the cutline accompanying the photo of representatives of the First Echo Group at the Low-Temperature Research Laboratory in the Hagen Aqualab, the order of the names was inadvertently reversed.

## Perceptions of 'Green' Products Differ from Reality

Agricultural economists explore ways to measure the true costs of producing and consuming environmentally friendly products

**G**REEN CONSUMER PRODUCTS are a marketing success story, but the "green" label on environmentally friendly products is often a misnomer, say agricultural economists at U of G.

That's because the actual cost of protecting the environment is not always reflected in products labeled as "green." Consumers tend to make decisions based on private environmental costs, such as health benefits, without considering public environmental costs, such as effluent dumping. But ways of measuring the true costs of producing and consuming green products to develop policy recommendations are currently being explored by Profs. Erna Van Duren and Kimberly Rollins and graduate

student Alex Beckett of the Department of Agricultural Economics and Business.

"There are a lot of ways the full cost is not incorporated into a product," says Van Duren. "A product can be positioned as green without doing anything to it."

Economists and marketers subscribe to the notion that the market will naturally correct any problems related to the environment, but because green consumerism is so new, few standards and legislation exist to define it. From the standpoint of both public and private costs, some products are legitimately green, but others are not, says Beckett.

"The problem with green consumerism is that it's difficult to sep-

arate the two parts of private and public environmental benefits," she says. "If the environmental problem were strictly a private one, it could be resolved."

Without a profit incentive, benefits to the public good are not going to be efficiently allocated through the free market, says Rollins. "A company won't pay to protect the environment for the public good without profit. It doesn't mean green consumer products aren't feasible, but they can't work on market forces alone."

Beckett has developed a market survey to determine what consumers prefer and how much they're willing to pay for a product to protect the environment. Using apple juice as a

model, she will look at all aspects of production, including growth of the fruit, harvesting, washing, packaging, the supply chain and the waste stream in the community. By focusing on green elements, the survey will separate perceptions about public versus private attributes of green consumer products to determine how much people are willing to pay for them.

Beckett is currently pretesting the survey with students and expects to take it out to the public in mid-March.

From an economist's point of view, nothing can be optimal unless the full cost is given to consumers, says Van Duren, who notes that a dysfunctional balance exists in

regards to environmental costs of consumer products. She believes that if Canada positions itself as a producer of "truly environmentally friendly products," it could gain a competitive edge in the global market. To do so, however, government policy and market incentive mechanisms are needed.

Adds Rollins: "There is a pervasive attitude to get rid of regulations. People have to see beyond the obvious to understand the incentives."

This research is supported by the Agri-Food Systems Project of U of G's research program with the Ontario Ministry of Agriculture, Food and Rural Affairs.

BY MARGARET BOYD  
OFFICE OF RESEARCH



[illegible]

Participants must be located at least 2

**Programs subject to change without notice.**

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## FOR SALE

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1994 Suzuki Sidekick, 4x4, red, soft top, excellent condition, 519-928-2469 or send e-mail to sbrebaum@uoguelph.ca.

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Exotic orchids from Taiwan and China, no greenhouse, no cold period required, 823-0479 or send e-mail to ysong@uoguelph.ca.

Small vanity, brass and glass; microwave stand, almond with butcher-block top; pole lamp; small telephone table; grocery cart; wicker plant pot, 763-1585.

Freezer, 12 cubic feet, excellent condition; sofa bed, 67-inch double bed,

beige tweed, good mattress, used twice, Carolyn, Ext. 6274 or 837-1245.

Yamaha apartment-size piano; hand weights — two, five and 10 pounds on a stand; Brenda Dygraf Instride Walker exercise machine, excellent condition; small animal cage, plastic bottom and wire top (25 x 16 x 15 inches), includes food dish, water bottle and wood shavings, 822-1354 after 6 p.m.

Four-bedroom bungalow with separate three-bedroom finished basement apartment, garage, pool, private yard, two laundry hookups, appliances, parking, 763-6177.

## FOR RENT

Basement bachelor apartment, furnished if required, separate entrance, 10-minute bike ride and 15-minute bus ride to campus, laundry, parking, non-smoker, no pets, available April 1, \$425 a month inclusive, 837-2227.

Three-bedroom bungalow, semi-furnished or unfurnished, next to University, available for one year from the end of April, non-smokers, Ext. 4915, 766-1914 evenings or 905-262-6175 weekends.

Semi-furnished three-bedroom century stone house, 1 1/2 baths, large back room with great windows, hardwood floors, yard, shed, washer/dryer, downtown location, non-smokers, available July 1 to June 30, 1999, \$1,300 a month plus utilities, Jay, 822-3493.

Basement bachelor apartment, separate entrance, walking distance to campus, non-smokers, no pets, available immediately, 824-5753 after 6 p.m.

Four-bedroom house backing on to campus, four appliances, annual lease, available March 1, \$1,200 a month plus utilities, leave message at 767-5003.

Two-bedroom furnished house available Feb. 1 to March 31, 10-minute

walk to University, mature persons only, no pets, no smoking, \$875 a month including utilities, 822-6193.

Three-bedroom renovated bungalow, excluding basement apartment, close to river, trails and bus, non-smokers, no pets, \$825 a month plus utilities, 824-0246.

Furnished two-bedroom condo in historical building in centre of Guelph, everything supplied, rent by day, week or month, reasonable rates, available April 1, Carol, 823-1857 or 837-7537.

Two furnished bedrooms in quiet home, sitting room, private bath, kitchen, shared laundry, two blocks to University, on bus route, Ext. 6528 or leave a message at 822-2336.

## WANTED

Trucks to Honduras needs a cheap, reliable Toyota 4x4 pick-up truck, extra cab preferred, to be donated to a street children's organization in Honduras, Kim, 836-2227.

Two-bedroom house, townhouse or apartment from April 1 to July 31, non-smokers, in Guelph or a short commute, 240-4488 during office hours.

Used bicycle with training wheels for a three-year-old, Barb, Ext. 2043 or 821-7069.

Used NordicTrack ski machine, Denise, Ext. 3884.

Ride needed from Stone Road Mall area to downtown Cambridge Monday to Friday, 823-0891.

## AVAILABLE

Care for your dog in my home while you travel, Cobi, 836-8086 or send e-mail to cdeemers@uoguelph.ca.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Linda Graham on Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@exec.admin.uoguelph.ca. For more information, call Ext. 6581.

## Make the LINK with a Student from Abroad

*International students, volunteers gain from sharing their cultures*

**R**EMEMBER your first few weeks at university? Finding the different classrooms, sorting out schedules, looking for offices on the third floor. How about finding an apartment or getting the phone hooked up? Sometimes the experience could be overwhelming and definitely confusing.

Now imagine going through that same experience but in another country, one with different cultural norms. Add to that trying to work in a different language than the one you were born speaking. Sounds overwhelming, doesn't it?

Every year, this happens at U of Guelph when about 200 international students arrive on campus. They may be undergraduates on exchange for one or two semesters or doing their complete degree at U of G. They may be graduate students or visiting scholars. Some come alone; some come with families. They may be here for just a short time or a number of years, but they all share a common need.

They all need help from people on campus who know their way around — friendly people who can help them find the administrative services they need, the buildings on campus or the best place to relax on a Friday night. Some of them need a friendly face to help cope with the adjustment. How can they meet these people? Through the LINK program.

LINK is operated through the Centre for International Programs. It provides new international students with a "buddy," a volunteer who will help to orient the new student to the campus and the city. Although primarily operated in the last week of August and the first two weeks of September, the time when most new students arrive, it does run all year round.

Volunteers contact their matched student at least weekly, or more often if needed, during the initial period of orientation, usually only two or three weeks. These LINK volunteers are recruited from the University and Guelph community.

So what do volunteers get for their time? A chance to meet someone from another culture who can share their world view and a chance to make new friends, sometimes life-long friends. LINK and the office of the international student adviser provide opportunities for students and volunteers to socialize. Volunteers learn more about their own culture and its values as they interact with people with different outlooks. And they have the satisfaction of helping another person get settled into what can be a difficult situation.

For more information, call international student adviser Berny Quay at Ext. 3954.

BY PATRIC SENSON  
LINK PROGRAM

## LETTERS

### TOBACCO SHOULD NOT BE LEGITIMIZED AT U OF G

I RECENTLY RESIGNED from the University Club because of the club's policy on tobacco smoke. Some colleagues may not be fully acquainted with the club's position on this issue. If they were informed, I think some like-minded colleagues might want to reconsider their membership, and others who have been considering applying for membership may similarly wish to review their situation.

Tobacco smoke is the leading cause of preventable death and crippling disease worldwide. These facts are known to the medical/scientific profession and the public, mainly through university-based research, now amounting to more than 100,000 peer-reviewed publications.

The tobacco industry has, for a major part of this century, also known these facts through its own research, which it succeeded in keeping secret from the public until recently. The industry has waged a relentless campaign of lies and misinformation to deny the scientific facts and mislead the public. These facts about the industry's distortions of the facts are also known through university-based research.

Tobacco is more addictive than heroin. Most smokers start the addictive tobacco habit as children. Until recently, virtually no smokers were recruited into the tobacco habit as adults. These facts are also known through university-based research and, of course, have also

been well known to the tobacco industry for many decades. This is why the industry uses its enormous resources to constantly recruit new smokers among children.

Some of this recruitment is through obvious routes such as using cartoon characters with child appeal (e.g., Joe Camel). Another major part of child recruitment is to promote the image of smoking as an adult activity; an important component of this is to maintain the image of adult acceptance of the legitimacy of tobacco.

Recently, the latter has taken on new importance as a "new political correctness" has developed. It is now "new political correctness" for adults (including large numbers of women) to ridicule the above-mentioned scientific facts as politically correct and to demonstrate one's "new correctness" by smoking cigars. This situation was, of course, created by massive advertising and misinformation campaigns by the industry and is being nicely exploited by the industry to claim legitimacy of tobacco in their overtures to youth. These facts about the sociology and psychology of smoking — and of tobacco advertising strategy — are also known as the result of university-based research.

Recently, the University Club on campus announced plans for an evening of wine tasting, to which it also planned to invite vendors of the disgusting poison tobacco to "showcase" their cigars. In a letter to the club president, I brought some of the above facts on tobacco to the

club's attention and asked that the club reconsider this move. My letter was ignored, however, and the evening was held (and another is now planned). I was subsequently informed that the club's executive committee had rejected my suggestion because the committee believes that "no faculty member would actually start smoking because of events put on by the club."

As mentioned, recent research shows that the new fad of cigar smoking has created the new phenomenon of recruiting new smokers among adults. Thus, what the University Club calls "showcasing" of cigars does indeed entice people to commence smoking. This, in turn, fulfils the industry's major objective — to create an image of re-legitimation of the disgusting habit of smoking as a backdrop for the major thrust, recruitment of children.

In a stroke of the pen, the executive committee of the University Club dismisses, flaunts and, by implication, ridicules the conclusions that emerge from some 40 years and 100,000 publications of research. I believe it is unacceptable for a university-based institution such as the University Club of U of G to treat university-based research in this way. If university people are going to trivialize research like this, who can be expected to support it?

PROF. STAN BLECHER  
MOLECULAR BIOLOGY  
AND GENETICS



## ARBORETUM

Maple Syrup Days run for five weekends beginning March 7 at the nature centre. Events include puppet shows, guided tours of the sugar bush and demonstrations of tapping. Cost is \$3.50 for adults, \$2.50 for children.

Naturalist Chris Earley leads a duck workshop March 17 and 24 at 7 p.m. at the Arboretum Centre. The session includes a field trip April 19 to view migrating ducks at Mountsberg Conservation Authority. Cost is \$58. Registration and payment are required by March 10. To register, call Ext. 4110.

*Two and Two Make Sex*, a comedy written by Richard Harris and Leslie Darbon and directed by John Snowden, runs at The Theatre in the Trees Saturdays until April 25. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45. For information, call Ext. 4110.

"A Natural Approach to Home Gardening" is the topic of a workshop led by horticulturist Henry Kock March 12 and 19 from 9 a.m. to 4 p.m. Cost is \$60. Registration and payment are required by March 5. To register, call Ext. 4110.

## ART CENTRE

The exhibition "Micah Lexier: Self-Portrait as a Proportion" opens March 12 at the Macdonald Stewart Art Centre and continues to May 10. Lexier will give an artist's talk March 12 at 7:30 p.m., to be followed by the opening reception at 8 p.m.

## CONCERTS

The Thursdays at Noon concert series in MacKinnon 107 continues March 4 with "The Music of Nicolas Vallet" performed by lutenist/guitarist Terry McKenna.

## DISCUSSION

The "Our World" series continues March 3 with members of the OPIRG Trucks to Honduras Working Group discussing their upcoming drive to Honduras and the plight of street kids in that country. On March 10, Natasha Mallal outlines the "South Asian Women Together" anthology project and will be presented with the Ellen Nilsen Memorial Scholarship, which is awarded annually to a female student from a developing country. The video *Hollywood's Portrayal of Asian Women* will follow. Both sessions run from 11:30 a.m. to 1 p.m. in UC 334.

## LECTURES

The women's studies program is sponsoring a free lecture series on "Gender, Violence and Difference" this semester. On March 2, feminist therapist and author Bonnie Burstow discusses "The Racist, Sexist and Ablest War Against Women: Physical, Sexual and Psychiatric Violence." On March 9, author and U of G sessional lecturer Shahnaz Khan presents "Racialized and Sexualized Violence Against Women: A Reflexive Discussion and Workshop." Both sessions run from 12:30 to 2 p.m. in the Whippletree on UC Level 4.

The School of Fine Art and Music is hosting a series of visiting speakers on visual arts this semester. Next up is Toronto artist John Massey, who discusses "The Jack Photographs — A Narrative in 50 Pictures" March 4. "Figuring the Body" is the topic of Toronto sculptor Evan Penny March 11. The talks begin at noon in Zavitz 320.

The "Media in Canadian Life" lecture series sponsored by the interdisciplinary program in Canadian studies continues March 3 with York University sociologist Ray Morris discussing "Canadian Political Editorial Cartoon Analysis" at 2:30 p.m. in MacKinnon 232.

Third Age Learning — Guelph's lecture series for retired people continues March 4 with Prof. Fred Vaughan, Political Science, discussing "The French Revolution of 1789" at 10 a.m. and Gordon Greene on "Gluck Challenged the Prima Donna: Stamitz Challenged Bach" at 1:30 p.m. On March 11, the topics are recapitulation and Beethoven. Lectures are at the Arboretum Centre.

## NOTICES

The Asia Pacific Foundation of Canada (APFC) is accepting applications for its graduate student internship program. Summer interns receive a four-month full-time placement in the research and analysis division of APFC, beginning May 1. Application deadline is March 13. For more information, send e-mail to [rainfo@apfc.apfnct.org](mailto:rainfo@apfc.apfnct.org).

The Hafa restaurant hosts "Hockey Night in Hafa" March 3 from 11:45 a.m. to 1 p.m. For reservations, call Ext. 8116.

Learning and Writing Services needs English-speaking volunteers for its conversation partners project. Volunteers spend two hours a week helping international students with

spoken English. For more information, call Ext. 3632.

The Stress Management and High Performance Clinic is offering a "Better Sleep Program" beginning March 13. Five one-hour sessions run Wednesday and Friday at noon in UC 441. Cost is \$50 general, \$25 for U of G students. For more information, leave a message at Ext. 2662 or check out the Web site [www.uoguelph.ca/~ksomers](http://www.uoguelph.ca/~ksomers). Registration forms are available at the Connection Desk on UC Level 3.

The NAFTA Internship Program places students in organizations that deal with NAFTA issues on a daily basis. Award scholarships go to academically superior students who demonstrate initiative and leadership. Applications are due March 14 for the summer 1998 program and May 5 for the fall program. For more information, send e-mail to [pilarm@two.edu](mailto:pilarm@two.edu) or call 1-800-486-8921.

Learning and Writing Services offers a number of services to help students enhance their academic performance. These include consultations and drop-in clinics on exam preparation (March 3, 24 and 31 and April 7 from 1 to 4 p.m.) and time management and procrastination (every Wednesday from 1:30 to 4 p.m.). The unit also offers individual assistance with peer helpers and the non-credit course ExamSMART. For more information, call Ext. 3632 or visit the Learning and Writing Services desk on UC Level 3.

## SEMINARS

The biochemistry seminar series continues March 12 with graduate student Laura Malcolm discussing "One- and Two-Dimensional NMR Studies of Human Brain Extracts" at noon in MacNaughton 222.

The Department of Biomedical Sciences presents graduate student seminars Fridays at 12:30 p.m. in OVC 1642. On March 6, Kathy McDougall explains "Alkaline Phosphatase Protein Expression in Preattachment to Bovine Embryos and Various Bovine Tissues."

The Department of Economics presents George Mailath of the University of Pennsylvania discussing "Endogenous Inequality in Integrated Labor Markets with Two-Sided Search" March 6 at 3:30 p.m. in MacKinnon 235.

Mike van den Heuvel of the University of Waterloo is guest speaker March 3 in the Axelrod Institute of Ichthyology's "Loaves and Fishes"

seminar series. His topic is "Yellow Perch in the Alberta Oil Sands." On March 10, Mark Sheridan of the University of North Dakota focuses on "Hormones and Lipids in Fish." The talks begin at 12:30 p.m. in Axelrod 168.

The Department of Physics presents Christine Wilson of McMaster University discussing "Probing a Galaxy Merger: The Nuclear Region of ARP 220" March 3. "View from Space" is the topic of J.R. Drummond of the University of Toronto March 10. Seminars begin at 4 p.m. in MacNaughton 113.

The Plant Biology Council hosts a seminar series Wednesdays at 3:15 p.m. in Axelrod 259. On March 4, Anne Bruneau of the University of Montreal examines "Phylogenetic Evidence for Multiple Switches in Pollination Mode in the Leguminosae." On March 11, the topic is "Adaptation of Plants to Burial in Sand Dune Systems" with Anwar Maun of the University of Western Ontario.

Graduate student Tamara Bogdanovich, Human Biology and Nutritional Sciences, explains "The Pattern of Bone Loss in a 19th-Century Population" March 9 at 11 a.m. in Animal Science and Nutrition 306.

The Department of Microbiology presents Dieter Jendrosseck of Universität Göttingen in Germany March 11 at noon in Chemistry and Microbiology 319. His topic is "Extracellular and Intracellular Degradation of Poly-hydroxybutyrate: Homologies and Differences."

## SYMPOSIUM

The School of Fine Art and Music presents a symposium on Russian music and culture March 7 from 9:45 a.m. to 4:45 p.m. in MacKinnon 107. Keynote speaker Malcolm Brown discusses "Research on Russian Music in the Soviet Union, 1961 to 1991" at 10 a.m. The symposium will also feature a recital of Russian songs at 3 p.m.

## THEATRE

Drama students in the School of Literatures and Performance Studies in English present *Jehanne of the Witches*, directed by Prof. Ric Knowles, March 16 to 21 at the Inner Stage in the MacKinnon Building. Tickets are \$6 Monday to Wednesday, \$8 Thursday to Saturday.

## WORSHIP

The interfaith Campus Ministry is

offering a free five-session course on meditation from different traditions. Included are introductions to Christian meditation, Buddhist meditation, meditation through yoga and meditation through relaxation. No experience is required. Sessions run Sundays from 3 to 4 p.m., beginning March 1. To register, call Rev. Lucy Reid at Ext. 2390.

## WORKSHOPS

The Office of First-Year Studies (OFYS) and T55 present a workshop on "Instructional Design in First-Year Courses: Implications for Curriculum Design and the Evaluation of Student Learning" March 5 from 11:30 a.m. to 1 p.m. in Day Hall 125. This workshop is especially oriented toward members of curriculum design committees and faculty interested in maximizing student learning in first-year courses. Workshop leaders are Shelly Birnie-Lefcovitch of OFYS and Prof. Jim Pickworth, Hafa. Register with Helen Martin at Ext. 2973.

"Getting the Big Picture: Using Concept Maps to Improve Teaching and Learning" is the topic of a workshop offered by TSS and Learning and Writing Services March 10 from 11:30 a.m. to 1 p.m. in Day Hall 125. Facilitators are Mary Wilson and Maryann Kope of Learning and Writing Services. Register with Helen Martin at Ext. 2973.

## COMMUNITY EVENTS

The Guelph Historical Society meets March 3 at 8 p.m. at St. Andrews Church. Father Joe Brzezicki of Ignatius College will discuss "The Jesuit Presence in Guelph."

The Rotary Club of Guelph's 1997/98 travel and adventure film series features "Cruising to Bermuda" with Martha Keller March 4 at 8 p.m. at E.L. Fox Auditorium. Tickets are \$5 at the door.

GATE (Global Awareness Through English) Enterprises Inc., an English-as-a-second-language school in Guelph, is seeking host families for international students, whose stays vary from one month to a year. Families must speak English at home and be willing to help with the student's transition into Canadian culture. Families are remunerated for their services. For more information, call 519-244-8135.

A Gay, Lesbian, Bisexual, Transgender Community meeting will be held March 4 at 7 p.m. at the Matrix Centre at Erasmosa and Woolwich. For more information, call 836-4550.

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- 3 **YEAR 2000 Committee** tackles campus PCs.
- 4 **GRADUATE STUDIES** dean Alastair Summerlee calls the province's approach to student financial aid disappointing.
- 5 **CANADA CAN** learn some important cultural lessons by studying Russia's musical past, says musicologist.

## Holocaust Historian to Visit March 23

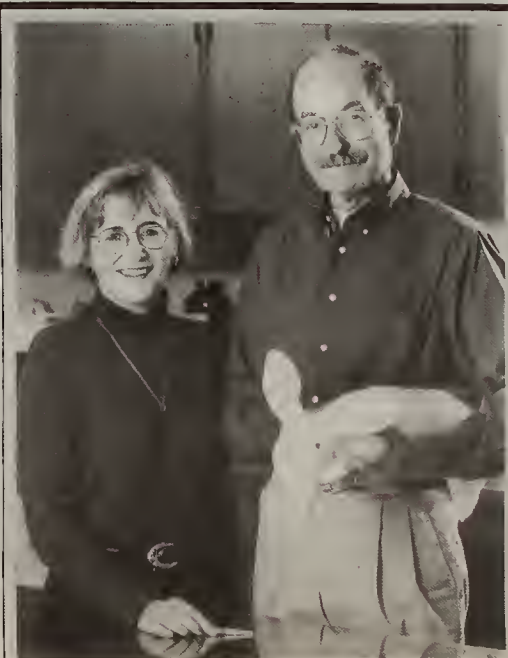
**C**HRISTOPHER BROWNING of Pacific Lutheran University, one of the most renowned historians of the Holocaust, will visit U of G March 23 to talk about current Holocaust research.

Browning's research has made major contributions to understanding the role of governmental institutions, the significance of the Second World War and the involvement of ordinary Germans in the events leading up to the Holocaust.

He is the author of four books on the Holocaust, including *Ordinary Men: Reserve Battalion 101 and the Final Solution in Poland*, which earned the National Jewish Book Award in 1992.

Recipient of a number of fellowships, Browning was Shapiro Senior Scholar in residence at the U.S. Holocaust Memorial Museum in 1996. He is currently writing one volume for Yad Vashem's forthcoming multi-volume comprehensive history of the Holocaust.

While at Guelph, Browning will give a public lecture on "The Holocaust and the War: Adolf Hitler and the Decisions for the Final Solution" at 2:30 p.m. in Room 100 of the Axelrod Building. He will also address the Department of History's graduate-faculty colloquium at 4 p.m. in Room 236 of the MacKinnon Building, where his topic will be "The Holocaust and Perpetrator History."



### IS THIS FUR REAL?

OVC veterinarian Denna Benn, director of Animal-Care Services, and professor emeritus Dean Percy Introduce the newest addition to the Central Animal Facility — an artificial rabbit designed to show students, technicians and researchers how to handle laboratory animals. Now all the rabbit needs is a name. See story on page 5. PHOTO BY MARTIN SCHWALBE

## Federal Budget an 'Excellent Start' for Education

*Rozanski calls on Ottawa to extend student aid*

**A**N "EXCELLENT START" is how President Mordechai Rozanski describes the "education budget" released by federal Finance Minister Paul Martin that contains spending and tax-relief measures for postsecondary education worth \$4.7 billion over the next four years.

The centrepiece of the budget tabled Feb. 24 was the Canadian Opportunities Strategy, which introduces a \$2.5-billion endowment fund to provide needs-based scholarships for low- and middle-income students, offers debt-relief measures and special grants for needy students, provides incentives to help families save for higher education, and restores funding to the country's three research granting councils.

Through the new Canada Millennium Scholarship Fund, Ottawa will provide more than \$35 million a year to more than 100,000 full- and part-time students from low- and middle-income families. The fund, which will be administered by an

arm's-length body called the Canada Millennium Scholarship Foundation, will give undergraduate students an average of \$3,000 a year starting in 2000 (see story on page 6 for more details).

"I am encouraged by the initiatives outlined in this budget that will put badly needed public funding back into this country's postsecondary education system, particularly in responding to student debt-relief needs," says Rozanski. "After years of neglect, these are excellent first steps in preserving accessibility, quality education and competitive research."

At the same time, he has called on the federal government to extend financial assistance to all eligible students and is encouraging Ottawa to consider amending the new scholarship fund to begin distributing money to students by fall 1999 instead of a year later.

"Accessibility and student debt  
*Continued on page 6*

## Research Proposal Targets \$78 Million

*Collaboration of four colleges and 174 researchers puts U of G at the hub of rapidly expanding agri-food cluster*

**U** of G has made a proposal worth almost \$78 million to the recently announced Ontario Research and Development Challenge Fund (ORDCF) to fundamentally strengthen Guelph's research capability and, in particular, to yield new knowledge and ideas to be used by its partners in the food system. Already armed with a commitment of almost \$52 million in funding and in-kind support from the food sector, U of G hopes to receive almost \$26 million from the provincial and federal governments.

Guelph's interdisciplinary proposal spans four colleges — OAC, CPES, CBS and OVC — and Laboratory Services, and emphasizes U of G's strengths in basic and applied sciences. It includes researchers in physics, biomedical sciences, plant agriculture, microbiology, pathobiology, molecular biology and genetics, animal and poultry science, food science and the Guelph Food Technology Centre, population medicine, land resource science, human biology and nutritional sciences, chemistry and biochemistry, environmental biology, zoology and engineering. If the initiative obtains full funding, it will create

at least 107 new jobs for researchers and technicians at the University.

The funding will enable Guelph and its research partners to help the agri-food industry develop and market its products, services and technologies, and will enhance the University's position as the hub of a rapidly expanding agri-food business cluster.

"The goal is to conduct research across the sciences reflecting the continuum from basic to applied research that will generate new ideas and knowledge," says president Mordechai Rozanski. "This research program has the potential to increase farm-gate produce value by \$1 billion per year and to create new opportunities and jobs in the food business."

In this year's proposal, called the "Development and Implementation of Forefront Technologies in the Food System," Guelph has asked the province for \$20.29 million over three years, including almost \$8.6 million in the first year. The ORDCF is a \$500-million, 10-year program announced last year by the Ontario government to promote research

excellence and partnerships between business and research institutions such as universities and hospitals.

As part of its \$78-million program, U of G is also developing related proposals for just over \$5.6 million in funding from the Canada Foundation for Innovation (CFI). Through this foundation, the federal government has committed \$800 million over five years for research infrastructure needs.

Consisting of nine components ranging from food safety and disease prevention to food packaging and environmental analysis, the Guelph proposal brings together 174 U of G researchers, 29 scientists from the universities of Toronto and Western Ontario, and 144 private-sector partners in the agri-food sector.

The nine components and their University co-ordinators are:

- food safety and disease prevention (Prof. Scott McEwen, Population Medicine);
- functional and novel foods (Arlene Yee, Laboratory Services);
- food-packaging performance and food/soft materials research (Prof. Rick Yada, Food Science);
- enhancing the capacity of plant agri-

culture (Prof. Tom Michaels, Crop Science);

- controlled-environment systems (Prof. Michael Dixon, Horticultural Science);

- molecular genetic technologies in animals (Prof. Cecil Forsberg, Microbiology);

- information systems and modelling for animal metabolism and health (Profs. Jim Wilton and John Cant, Animal and Poultry Science);

- food system molecular biology and biotechnology (Prof. Steven Rothstein, Molecular Biology and Genetics); and

- advanced analytical capabilities for understanding environmental effects of soil treatments (Prof. Terry Gillespie, Land Resource Science).

The hoped-for infrastructure funding from the CFI would allow renovations to the Axelrod Building for the molecular genetic technologies project, construction of new labs for the controlled-environment systems and food-packaging projects, and renovations to the Crop Science and Richards buildings for the plant agriculture project.

*Continued on page 2*





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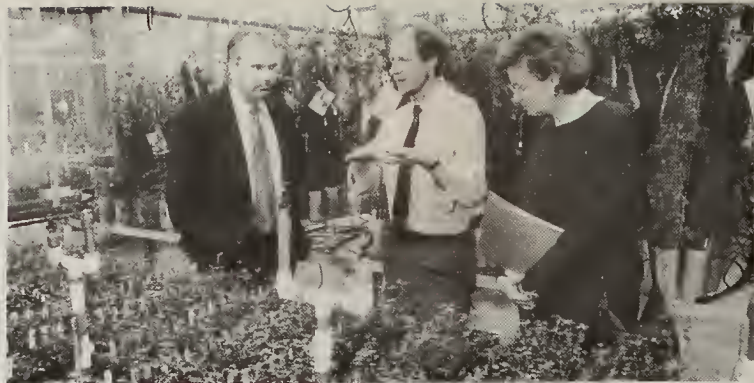
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Prof. Peter Pauls, Crop Science, centre, leads minister Jim Wilson and MPP Brenda Elliott on a tour of the Transgenic Plant Laboratory.  
PHOTO BY MARTIN SCHWALBE

## Energy Minister Tours Facilities

Visit demonstrates extent of interdisciplinary collaboration on campus

A VISIT TO U OF G last week by Jim Wilson, Ontario's minister of energy, science and technology, gave scientists in CBS, CPES and OAC and University administrators a chance to demonstrate current research projects, describe research partnerships with government and industry, and incidentally discuss some of the strengths of Guelph's proposal to the Ontario Research and Development Challenge Fund (ORDCF).

"We wanted to give the minister a brief view of some of the research, and particularly the approach we take to research, at the University of Guelph," says Prof. Larry Milligan, vice-president (research).

During the two-hour tour led by president Mordechai Rozanski, Wilson, deputy minister Ken Knox and Guelph MPP Brenda Elliott visited the Guelph Food Technology Centre (GFTC) and Food Science Building, the Chemistry and Biochemistry Building, the DNA Sequencing Facility in the Axelrod Building and the Transgenic Plant Lab in the Crop Science Building.

Earlier in the day, Wilson had announced the appointment of Cal Stiller of the University of Western

Ontario, as chair of the advisory committee reviewing submissions to the ORDCF. Through the fund, the province will provide \$50 million a year over the next decade to support facilities and capabilities in research of interest to industry. Guelph's was one of about 110 proposals submitted in the inaugural competition.

Calling Wilson's visit a success, Milligan says it gave U of G an opportunity to demonstrate the quality of its research, show the extent of interdisciplinary collaboration across campus, link basic discovery research with industrial applications, and underline the University's long-standing partnerships with industry. Student researchers were also highlighted along the way.

"It was my sense that the visit was really well received," says Milligan. "They learned a great deal about research at the University of Guelph."

During the tour, staff, students and faculty discussed various projects, including:

- discovery research in soft materials science, microbiology, packaging, food safety and disease prevention, and its link to food industry needs (presenters were OAC dean Rob

McLaughlin, Profs. Marc Le Maguer, Rick Yada, Marvin Tung and Ross Hallett, and GFTC CEO Terry Maurice);

- electrochemistry research of Prof. Jacek Lipkowski, Chemistry and Biochemistry, and its application in large contracts with Inco Ltd. and Ontario Hydro;
- the role of molecular biology research, particularly U of G's DNA Sequencing Facility, in food production and distribution (on hand were acting CPES dean Bryan Henry, Prof. John Goddard and Walter Savich of Linamar Corp.);
- the enhanced partnership with the Ontario Ministry of Agriculture, Food and Rural Affairs, and U of G's analytical capabilities through Laboratory Services (this work was demonstrated by CBS dean Bob Sheath, Prof. Steven Rothstein and Bruce Archibald of Laboratory Services); and
- research in transgenic plant development and controlled environmental systems, including Guelph's development as a national biotechnology and agri-food cluster (presenters were McLaughlin and Profs. Dave Hume and Peter Pauls).

## Research Proposal

Continued from page 1

A review by U of G's CFI/ORDCF co-ordinating committee, a University-wide group chaired by Prof. Larry Milligan, vice-president (research), identified food systems technology and services and advanced analytical capabilities as strategic directions for pursuing ORDCF and CFI funding.

"When you start looking at agri-food and advanced analytical capabilities, there's a high degree of complementarity between the two," says Wayne Marsh, director of research services.

Marsh says U of G will apply for additional ORDCF funding in subsequent competitions and plans to broaden the partnership to include more involvement of advanced analysis as well as other campus disciplines. The initiative might, for example, incorporate U of G social scientists now applying for funding from the federal Network of Centres of Excellence to study sustainable rural communities.

The U of G initiative would be the only one of its kind in the world.

Wageningen University in the Netherlands has competitive campus-wide expertise and commitment to the food system, but lacks the university/industry partnerships already in place at Guelph. Noting that this proposal will expand those existing ties, Marsh says: "You'll have a concentration of researchers here and links to both levels of government and the private sector that would be unique."

U of G scientists' existing links with industry and the research infrastructure already in place on campus make Guelph an ideal location for this partnership, says Milligan. Other members of the committee overseeing the University's submissions are Prof. Iain Campbell, provost and vice-president (academic); Prof. Constance Rooke, associate vice-president (academic); Prof. Ken Jeffrey, chair of the University Research Board; and John Mabley, vice-president (development and public affairs).

BY ANDREW VOWLES  
AND MARGARET BOYD

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## UNITED WAY TALLY IN

The final numbers are in for the 1997 campus United Way appeal, and they're sitting more than \$10,000 above goal. The total is \$196,594, of which \$9,065 is designated to other communities via contributions from U of G's agricultural colleges in Kemptville, Alfred and Ridgetown. Campaign co-chairs Nancy Sullivan, vice-president (finance and administration), and Prof. Wayne Martin, Population Medicine, extend their thanks to the University community for their strong show of support.

## CO-ORDINATOR SOUGHT FOR KRAKOW SEMESTER

The Krakow Semester Committee is looking for a faculty member interested in living and working for a semester in Krakow, Poland, to co-ordinate U of G's Krakow semester in fall 1999. The co-ordinator's responsibilities include recruiting and selecting students for the semester, deciding on courses and trips and teaching one course. Interested candidates should write or send e-mail to the chair of the Krakow Semester Committee, Prof. Joanna Boehnert, Psychology (boehnert@css.uoguelph.ca), by March 20. Interviews will be held in April or May. For more information, call Boehnert at Ext. 3517.

## CAMPUS DAYS MARCH 18 AND 19

Campus Days, U of G's annual information days for high school students and their parents, run March 18 and 19. In addition to information sessions, the days will feature displays on co-operative education by the Counselling and Student Resource Centre to mark National Co-operative Education Week. The displays will be open from 10 to 11:30 a.m. and 1 to 2 p.m. in the Athletics Centre.

## PESTICIDES, TOXICOLOGY FOCUS OF OPEN LEARNING

The Canadian Network of Toxicology Centres, Centre for Toxicology, Department of Environmental Biology and Office of Open Learning are sponsoring two open-learning courses this spring. A one-week course on "Pesticides and the Environment" for professionals in government, agriculture and chemical industries runs April 20 to 24. "Advanced Principles of Toxicology," a two-week graduate-equivalent open-learning course for professionals in toxicology-related fields, runs April 27 to May 8. For more information, call Prof. Keith Solomon, Toxicology, at 837-3320.

## MEMORIAL SERVICE SET

A memorial service will be held March 27 for Prof. Bill Graf, Department of Political Science, who died suddenly Feb. 25. The service begins at 2:30 p.m. at the Arboretum.

## OSAP Changes Draw Criticism

Provincial proposals do little to address debt-load issues, says Rozanski

**O**SAP CHANGES announced in February by Education and Training Minister Dave Johnson are meeting with — at best — mixed reviews, but generally, reaction is pessimistic. Overall, the government is tightening lending rules, with parents and universities expected to do more.

Coming in for strong opposition are proposals that, when implemented, could have a negative impact on accessibility. Families will have to contribute more to their children's education before they become eligible for a student loan; OSAP "dependency" on parents will extend to a fifth year from the current four; and students with a bad credit record, even if acquired through credit card or car loans, may not be eligible for a student loan.

"I am very disappointed with the announcements," says president Mordechai Rozanski. "They do little to address the sizable debts most students will take with them from university on graduation and, in fact, worsen the situation for students and universities. My position on this issue is clear: I favor a program of student support that places an increased emphasis on grants rather than loans."

Beginning in 1998/99, a family of four with a total income of \$40,000 will be expected to contribute \$100 towards their children's postsecondary education before being eligible for a student loan (they currently are not expected to make any payment), while a family with an income of \$55,000 will pay \$933 annually, up from the present \$324.

"The government dares that we must all do more," says graduate studies dean Alastair Summerlee, chair of the Enrolment Management Committee. "But in fact, the government is off-loading responsibilities directly on to universities, parents and students and telling them: 'Make do.'"

Associate registrar Peter Landoni sees a couple of disadvantages to credit checks on students. "I think it's going to be a cumbersome operation (for banks) to administer, and for students who might have been in some difficulty in the past, it may have a serious and negative impact on their education prospects."

But it is the new "fifth year" rule that is attracting the most criticism. "They've changed the period that students are viewed as 'dependent' on parents for OSAP purposes from four years to five, regardless of whether the loan appli-

cant has worked or not," says Summerlee. "This will create really serious barriers, especially for fourth-year students who graduate and want to do graduate work, and for students in financial need. The former are usually 23 years of age by the end of a four-year degree. It's outrageous when the age of majority in the province is 21, and here you have a situation where the government is still claiming that a student will be dependent on his or her parents."

Summerlee points to research indicating that even at present, a significant proportion of parents do not support children in the final year of an undergraduate degree, although the loan applicant is still classed a dependent for OSAP purposes. (See "Insight" on page 4.)

There are less contentious changes. The current loan-forgiveness program will be replaced with a grant program paid directly to a student's bank. Under the Ontario Student Opportunity Grant Program, students whose loan exceeds \$7,000 for the year will receive a grant for the amount above \$7,000 after completion of each academic year (rather than at the completion of an academic program, as is currently the system), to a maximum of \$2,350 for a single student and \$10,000 for students with dependents.

In the past, students have complained of stress because they were under the impression that they owed the full amount of the loan they were carrying.

Landoni sees this new program as a help. "It's an improvement because it's simpler for students to understand," he says. "Before, the forgiveness program wasn't done on an annual basis but over the length of a program, so students didn't know how much would ultimately be forgiven."

Landoni notes, however, that students taking on the maximum OSAP they're eligible for could still have a \$28,000 debt when they finish a four-year program.

In 1996/97, 218,000 students in Ontario received OSAP, about 42 per cent of full-time Ontario university students. Funding for student support from the province is expected to be \$335 million in 1998/99.

In addition, institutions with a 1997 loan-default rate of 38.5 per cent or higher (U of G's rate is about 14 per cent, below the university average) will have to share the default costs with the province, and all institutions will be

required to provide information on graduation rates, placement rates and loan-default rates by program.

In a separate announcement, Johnson called on banks and lenders to develop a more flexible approach to student loan programs. His ministry has issued a request for proposals to lenders who currently issue Ontario student loans, asking for input on possible options. These could include extending the loan-repayment period from 10 to 15 years and easing the size of payments for graduates whose earnings are low after graduation. Responses are due March 25.

Initially, the income-based plan met with criticism from banks and student groups, which seek a reduction in the total debt carried by students, rather than increasing repayment terms. In a press release, Council of Ontario Universities (COU) president Bonnie Patterson said: "Today's announcement has a singular focus on repayment after study. COU and the national round table on student assistance have long focused their advocacy for student assistance reform on a program that responds to students' varying financial planning needs — before, during and after study."

In making both announcements, which came just days before the federal budget, Johnson sought to deflect some of the criticism to Ottawa, noting that "for every dollar the federal government spends in debt relief for Ontario students, the Ontario government spends \$22."

Rozanski says he is unimpressed and does not support these proposals as helpful either to accessibility or student debt relief. "Not only do they fail to provide upfront bursary support, but they also fail to provide debt relief in the early stages of a student's independent life after graduation, when the most needy might require the greatest help to get family, housing and careers started."

The president also expresses concern that extension of the loan-repayment plan from 10 to 15 years simply increases interest accumulated and creates a large "balloon" payment due at the end. "If anything, the loan should be forgiven," says Rozanski. "This is another example of failing to understand that the problem is not loan repayment but accessibility and debt, which require a program of bursaries and debt relief."

BY ALEXANDER WOOLEY

## Year 2000 and Your PC

Subgroup studies impact of millennium on desktop personal computers

**H**OW WILL THE MILLENNIUM bug affect your PC?

That's what a group led by Bob Creedy of Computing and Communications Services aims to find out. Working as a subgroup of U of G's Year 2000 (Y2K) project, they are studying the effects of the bug on the thousands of desktop personal computers across campus.

"As almost all faculty and staff use a PC in their daily work, the findings from this project will be valuable in identifying potential computer problems as the calendar moves from 1999 to 2000 and what action, if any, should

be taken to minimize these problems," says Creedy.

He notes that problems may occur in both the hardware and software of a PC. His team will identify which software is Y2K-compliant and which is not, and will recommend action to take if hardware or software is not compliant.

Campus users are ultimately responsible for their own PCs, notes Creedy, but the subgroup will gather resources and information that will allow users to make informed decisions about what may need to be done. This information will be posted on the Uni-

versity's Y2K Web site in the PC section, which will serve as the "headquarters" for Y2K information related to PCs and PC software.

More details will be announced as the project moves forward and when the Web site is ready, says Creedy. The URL for the Year 2000 Web site is <http://www.uoguelph.ca/Y2K> and includes a link to the PC area of interest.

For more information about the PC subproject, call Creedy at Ext. 2589. For more information about the overall University Y2K Committee, call Doug Blain at Ext. 6475.

## PEOPLE

## STUDENTS HARVEST TOP PRIZES AT WEED COMPETITION

U of G students "choked out" the competition at North Carolina State University at the Northeastern Weed Science Society's weed competition, placing ahead of almost 50 other students from the United States and Nova Scotia. In the undergraduate competition, the two OAC teams captured the top spots, and the individual winners were all OAC agronomy and agricultural business undergraduates. Paul Van de Welle placed first, Andrew Dawson came in second, and third place went to Mike Cowbrough. In addition, Alison Connell was recognized for achieving the top score in a herbicide extension problem. The team was coached by Profs. Clarence Swanton and François Tardif, Crop Science, and PhD student Darren Robinson.

## DRAWINGS ON EXHIBIT IN LANDSCAPE ARCHITECTURE

"Visual Search," an exhibition of recent pencil drawings by Prof. Lari Wester, School of Landscape Architecture, will be on display in the school's hallway gallery from March 15 to April 12.

## CSA Election Results in for 1998/99

**S**OME 3,077 STUDENTS voted in Central Student Association (CSA) elections last week, a turnout of 26.7 per cent, the highest in the past four years.

New spokesperson on the CSA executive is Jessica Carn. Other members are Mark Truelove (activities commissioner), Jay Hahn (finance and operations), Deirdre Madden (internal commissioner), Amanda Dorte (external commissioner) and Elisa Vander Hout (local affairs commissioner).

Elected to Board of Governors for a one-year term that begins July 1 are Mitch MacDonald and Lana Rabkin.

Twelve students were elected to Senate for a one-year term that begins Sept. 1 — B.Sc. students Adam Dukelow, Jordin Green, Frank Le, Alison MacDougall and Orla MacSweeney; B.Sc. (Env.) students Jennifer Forkes and Kris Kernohan; and BA students Venk Chandran, Kirsten Mercer, Christopher Newell, Natalie Ross and Stuart Snyder.

In referendum votes, students said yes to paying 50 cents a semester to maintain the Bullring, no to paying \$2.50 a semester towards CSA human rights programs and no to paying 75 cents a semester to help pay for the CSA daytimer.

The results of two other referendums on a student dental plan and improvements to campus athletics facilities have been withheld pending the result of Graduate Students' Association elections later this month.



# STUDENT DEBT: THE LEGACY CONTINUES

*"The burden of debt from higher education, however restructured,  
is a significant barrier to encouraging wealth generation in Ontario society."*

BY ALASTAIR SUMMERLEE

**I**N A SERIES OF RELEASES over the last three weeks, the provincial government has consistently demonstrated that it neither understands nor listens to concerns about financial support for students.

At the heart of the issue is the rising cost of education and the fear that increasing the debt load will make education less accessible to those who cannot afford it. Universities are placed between the students and the government. Public funding of the institution is cut, so universities are forced to increase tuition fees to preserve quality. At the same time, the government continues to squeeze the ways in which students can receive support. The rising costs of tuition lead to higher debt loads. Higher debt loads result in a greater degree of default on debt.

The carefully crafted releases started three weeks ago with an announcement that child-care agencies must start to use OSAP (Ontario Student Assistance Program) loans as income in calculations for child-care support. This was followed by an announcement that extended the period of financial dependence of students on their parents (despite achieving the age of majority and irrespective of work history) and was completed by the news that Minister of Education and Training Dave Johnson was seeking assistance from banks on a plan for income-contingent repayment loans.

None of these changes address the fundamental issue of rising student debt load. Rather, these announcements have been constructed in a way that puts a positive spin on the changes for public relations purposes, but does little in practice to assist students with their debts and, in some cases, makes the situation worse.

In making these announcements, the minister has referred to a "partnership" among parents, students and industry, all of which are expected to contribute more to student aid. Yet it seems that, in fact, it is only parents and students who will be doing more; no real commitment from industry is required. Despite the rhetoric, there is no evidence that business will participate in this so-called partnership, other than to run a role in credit checks on students.

Particularly onerous is the change in the definition of financial dependence for OSAP claims. The extension of dependence from four years to five specifically attacks graduate education in this province. This is because the majority of Ontario university students complete their baccalaureate in four years before proceeding to graduate school. Under the old rules, many stu-

dents were eligible to claim support from OSAP independent of their parents for their first year of graduate school. Extending the period of financial dependence on parents will be seen as demeaning for many students and will effectively reduce their income, as many parents by this stage consider their offspring to be 'of age' and independent.

Not all the announcements on student loans are bad. The government has recognized, although it has not been explicit about this, that private institutions place the highest financial burden on the public purse from the higher-education sector. It is sometimes not widely appreciated that students in programs at private institutions have substantially higher default rates than students in publicly funded universities and colleges. Indeed,

universities and university programs have the lowest default rates. The government has sought to place the burden of default directly on the institutions with the highest default rates.

It is regrettable that they have not made it clear where the burden of default lies, especially in light of the recent announcement from the Toronto Board of Trade that there should be more privately funded institutions in Ontario. But the government has required that all institutions publish statistics on placement, debt load and default rates, a move that might enlighten the public on where the drain on public support has been coming from.

Restructuring the debt by offering income-contingent repayment loans over a period of time may be one way to deal with rising costs and debt loads. There is divided opinion in the university community on whether this is an appropriate strategy, although there is support for this as one of the options that might be available to students to structure their debt. But it should be accompanied by an appropriate and meaningful debt-forgiveness plan, a greater emphasis on grants and enhanced opportunities to repay the debt.

Many people graduating from universities, especially those with graduate degrees, enter a time in their lives when there are additional financial demands. These include setting up homes, families and businesses. These changes require financing. The burden of debt from higher education, however restructured, is a significant barrier to encouraging wealth generation in Ontario society.

But overall, these announcements and the attitude of the government are deeply disappointing, demeaning to students and deceptive in tone and language used. The University of Guelph has consistently made clear its position that the government should increase

the number of grants and bursaries made available to students, both to ensure accessibility and reduce the debt load. The president has also campaigned vigorously for funding of Ontario universities to be raised to at least the national average instead of being the lowest level of per-capita funding in the country, so that the vicious circle of increasing tuition, increasing debt and increasing default is broken.

The government of Ontario needs to recognize the interdependence of education (especially graduate education) and the wealth and health of this province, and significantly alter its course on these issues.

*Prof. Alastair Summerlee is dean of graduate studies and chair of the Enrolment Management Committee.*





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# IN TUNE WITH THE PAST

*Musicologist traces historical parallels between Russian and Canadian culture*

BY KERSTI KAHAR

**D**EVELOPING A DISTINCT CULTURAL IDENTITY while living next door to a dominant culture is something Canada has in common with Russia. And according to a U of G musicologist, Canada can learn some important cultural lessons by studying Russia's musical past.

Prof. Mary Woodside, Fine Art and Music, set out to find the origins of Russian opera and relate it to the development of a Russian cultural identity. At one time, Russian culture was considered by western viewers as somewhat primitive in comparison with western Europe. Similarly, Canadian cultural achievements have been held up against American or British standards. At different times, both Russia and Canada have been culturally colonized — Russia in the late 18th and early 19th centuries and Canada in the 20th century. Both countries have had to face the challenge of carving out their own cultural niche while living in the shadow of a cultural monolith. And the problem with a colonial society, says Woodside, is that it's forever subject to the expectations and judgments of the colonizing or dominant culture, and these become the standards by which all things are measured.

This Russian-Canadian parallel is an important insight arising from Woodside's research, which centres around the works of Mikhail Glinka, a 19th-century Russian composer. Traditionally, Glinka is considered the father of Russian music, and Woodside wanted to know why this was so. Composers in and before Glinka's time mimicked western European musical styles. But although Glinka drew on foreign inspiration, he also sought from a broader range, so that his style reflected an eclectic mix of western European, Slavic and Middle Eastern influences. It was this blending of styles that formed the basis of the original Russian style, says Woodside.

"What worked for the Russians was not to follow one particular model, but rather eclecticism," she says. "By combining influences, they created something that was seen as distinctly Russian."

The solution for countries like Russia and Canada is not to view the close proximity of a dominant culture as a problem, says Woodside. She stresses that the tendency to become defensive and isolationist should be avoided at all costs and that trying to benefit from outside influences is not a threat to cultural



integrity. Maintaining one's own culture and being influenced by another are not mutually exclusive.

"Once you develop your own style, it doesn't mean you stop paying attention to everything else," she says. "You can have a national style and still partake of the larger culture."

In the 19th century, for example, when the Russian style was established, it didn't mean that western influences were abandoned. In a similar vein, this principle can be applied to the Canadian context. Film aficionados can follow Canada's domestic film industry and also watch Hollywood films without any conflict of interest.

Woodside acknowledges that, despite the similarities, there are also some major differences. Unlike Russia, Canada has nev-

er been a major world power. And Canada's multicultural society is the result of circumstance, whereas in Russia, both the Soviet and Tsarist models absorbed many cultural and ethnic groups against their will into greater Russia.

She believes her research is also relevant to Russian musicologists. For much of this century, Soviet censorship of the arts and scholarship about the arts meant that Glinka's music — or any Russian music, for that matter — couldn't be said to have originated outside Russia, even though that was the case. This made it difficult, if not impossible, to contextualize Russian music in the world. Woodside says she's had the advantage of looking on as an objective outsider.

And she's been looking on for a while. Her 15 years of research on Russian music have included trips to Moscow in the summers of 1992 and 1993 to tap into resources at the Moscow Conservatory and Glinka Museum. She credits the trips, funded by the Social Sciences and Humanities Research Council, with granting her the greatest insight into Russian culture.

"Although we have tremendous access to information through such media as the Internet, one can learn so much more from actually going to the place one is studying," she says. "For humanities research, this is particularly fruitful. A little funding can go a long way and make an invaluable contribution to the research."

Woodside's career at U of G spans more than two decades, but she has been teaching full time since 1987. She gives a course in Russian opera that is sometimes offered as a video-link class with the University of Waterloo and is one of the first arts courses at Guelph to be offered by video-link. She also teaches courses in musical history and musicianship and is a member of the Waterloo/Laurier/Guelph Centre for East European and Russian Studies. Away from campus, she is secretary-treasurer of the New York State/St. Lawrence chapter of the American Musicological Society and was active for years in organizing events for the Guelph Spring Festival.

Most recently, Woodside combined her organizational skills with her field of expertise when she organized a well-attended symposium on Russian music and culture from the 18th through to the 20th centuries. Held March 7 in the MacKinnon Building, it boasted speakers from across North America addressing a range of topics in Russian music.

## Practice Makes Perfect

*New artificial teaching rabbit eases animal handling for lab technicians, researchers and OVC students*

**P**ROF. DEAN PERCY reached into his hat and pulled out a rabbit — an artificial rabbit, one of the most advanced teaching tools available today.

Percy, professor emeritus in the Department of Pathobiology, acquired the funds to purchase a Koken rabbit, an artificial animal designed to show veterinary students, laboratory technicians and researchers how to properly handle laboratory rabbits. Valued at more than \$1,000, the "female" ersatz rabbit now has a new home at the Central Animal Facility, sharing quarters with Burt, the artificial teaching rat acquired in April 1993.

"Purchasing artificial animals for teaching purposes is a sign of the times," says Percy. "Live animals will continue to be an integral part of the teaching program at this university, but where appropriate, finding alternatives to animal use is important for humane and economic reasons. Now, with the Koken rabbit, we're one step closer to that goal."

The artificial rabbit has been constructed with care and knowledge, even when it comes to internal anatomy. Opening up a flap on the Koken's belly gives a clear view of its organs, including stomach, lungs and bladder. Handlers can get more comfortable with procedures such as intuba-

tion (a technique used for anesthetic), stomach tubing (used for the oral administration of medication) and catheterization (for urine collection). Koken even has red fluid in its ear veins that can help handlers practise blood collection.

In the past, students learned proper animal handling mainly by demonstration, but because the Koken rabbit looks, feels and weighs the same as a real rabbit, it will give students extra experience, says Denna Benn, director of Animal-Care Services.

The rabbit made its debut at the end of February and will be used to teach animal handling to third-year

veterinary students. It will also become a permanent fixture of the animal-handling course offered by Human Resources.

"It's important that people are trained before they handle a live animal," says Benn. "This tool facilitates learning, and that makes it good for both animals and people."

She notes that an artificial teaching rabbit is not necessarily useful for

everyone and will not replace live animals in teaching, but it can be used to give some students and researchers practice ahead of time, minimizing anxiety in both the handler and the animal.

"It's amazing how quickly people learn when they can visualize and get the feel of a procedure before trying it."

BY JENNY TYE  
OFFICE OF RESEARCH

### Name That Rabbit

THE CENTRAL ANIMAL FACILITY is holding a contest to name the Koken rabbit. Entries should be submitted to veterinarian technician Annette Morrison (amorriso@uoguelph.ca) by March 27 at 4:30 p.m. The winner will receive a 40-pound bag of dog food or 20-pound bag of cat food.

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# Education Budget at a Glance

Strategy meets seven of eight recommendations made by AUCC and its partners last fall

**F**INANCE MINISTER Paul Martin's federal budget included the Canadian Opportunities Strategy, which outlines spending and tax-relief measures for postsecondary education worth \$4.7 billion over the next four years (representing 43 per cent of all new federal spending).

In its president's letter released Feb. 24, the Association of Universities and Colleges of Canada (AUCC) stated that the Canadian Opportunities Strategy meets seven of eight recommendations made by AUCC and its partners last fall. Those recommendations came out of a national round table on student financial assistance that brought together AUCC, the Association of Canadian Community Colleges, the Canadian Alliance of Student Associations, the Canadian Association of Student Financial Aid Administrators, the Canadian Association of University Teachers, the Canadian Federation of Students and the Canadian Graduate Council.

Here are highlights of the "education budget" from the AUCC president's letter:

- Ottawa will spend \$2.5 billion in endowment funding for the Millennium Scholarship Fund, as announced by Prime Minister Jean Chrétien last fall. The fund, which will be administered by a private foundation, will provide more than \$35 million a year for 10

years to more than 100,000 full- and part-time students from low- and middle-income families, starting in 2000. Based on an undetermined mix of merit and financial need, students will receive an average of \$3,000 a year for up to four years of study toward undergraduate degrees, diplomas or certificates. These awards will be available to support limited terms of study outside Canada.

- In one of several budget amendments to the Canada Student Loans Program, students may claim a 17-per-cent federal tax credit on interest paid in the current year on federal and provincial student loans, starting in 1998.

- The interest-relief program for graduates repaying Canada student loans will be extended to 54 months from 30 months for borrowers needing such assistance at any time during the life of the loan.
- For graduates who have exhausted their 54 months of interest relief, a new debt-reduction program will extend the loan amortization period to lower monthly payments and, if required, will reduce the debt based on the person's income and debt load.

- A new Canada study grant will provide up to \$3,000 a year for up to 25,000 needy students with children or other dependents.

- Beginning next January, students will be permitted to make tax-free

withdrawals of up to \$10,000 a year and up to \$20,000 over four years from registered retirement savings plans to support lifelong learning. Individuals with no sums outstanding from their plans may withdraw RRSP funds to finance a spouse's education, but not to fund a child's education. Students must repay the withdrawn amounts to their RRSPPs within 10 years.

- The existing education tax credit, worth \$200 a month to full-time students in 1998, will be extended to part-time students at a reduced rate.

- Part-time students will be able to claim a tax deduction for child-care expenses during their studies. For two-parent families, the higher-income spouse may claim expenses for part-time education of the other spouse.

- Through its new Canada education savings grant, the federal government will provide a 20-per-cent grant on the first \$2,000 contributed each year to registered education savings plans for children up to age 18. The maximum grant will be \$400 per child per year.

- The budget restores funding for Canada's three federal research granting councils to 1994/95 levels as of April 1, with small increases in the two subsequent years. Granting council budgets will increase by

a total of \$127 million in 1998/99, with NSERC receiving \$494 million (a 14-per-cent increase over 1997/98); MRC, \$267 million (a 12-per-cent increase); and SSHRC, \$101 million (a seven-per-cent increase). An undetermined amount of this money will be earmarked for support to graduate students and enhanced partnerships between universities and industry.

- Ottawa will increase its funding for the Industrial Research Assistance Program by \$34 million. Beginning in 1998/99, this fund will be aimed at small and mid-sized organizations to encourage strategic innovations and technology development for using energy, water and natural resources more efficiently and for preventing pollution.

- The federal government has introduced legislation to increase the cash floor on the Canada health and social transfer from \$11 billion to \$12.5 billion.

- Two budget measures will effectively neutralize the planned cuts of \$150 million to the international assistance envelope for 1998/99, although it is too soon to know how this additional funding will affect such university-related projects as the University Partnerships in Co-operation and Development program.

## Federal budget

Continued from page 1

load areas of great concern to the University of Guelph," Rozanski wrote in a letter last month to the finance minister. "We support the establishment of the Millennium Scholarship Fund and encourage the government to continue to emphasize grants based primarily on student need. Your proposed program of debt relief for graduates will do a great deal to increase accessibility and ease the concerns of at least students most severely affected. We hope this can be extended to all eligible students in a national grants program."

To encourage families to save for their children's education, the government has introduced a Canada savings education grant that will provide a 20-per-cent grant on the first \$2,000 of annual contributions made to registered education savings plans.

Students will also be able to withdraw up to \$10,000 a year tax free from registered retirement savings plans to pay for education; withdrawals must be repaid within 10 years.

In a package of measures intended to help needy students and cash-strapped graduates, the budget includes a federal tax credit for interest payments on student loans, interest- and debt-relief measures, and tax assistance that puts part-time students on an equal footing with

full-timers. Through a new Canada study grant, the government will provide an estimated \$100 million to about 25,000 needy students with children and other dependents.

### RESTORED RESEARCH FUNDING

The budget also restores funding to the three national research granting councils to 1994/95 levels. That funding will increase by a total of \$127 million or 14 per cent in 1998/99, although most of that will go to the Natural Sciences and Engineering Research Council (NSERC) and Medical Research Council (MRC) rather than the Social Sciences and Humanities Research Council (SSHRC).

Rozanski says he's pleased that the government has pumped more money into the granting councils, but adds that he hopes to see SSHRC funding increased to put social sciences and humanities research on a more even footing with science and medicine. Last fall, the Association of Universities and Colleges of Canada recommended that Ottawa provide a larger increase for SSHRC to correct a "funding imbalance."

The restored MRC funding came as good news to two groups of researchers at U of G who saw their grant applications approved by the council last week after having initially missed the cut in last

## How Ottawa Will Spend Its "Education Budget"

	1997/98	1998/99	1999/00	2000/01
(billions of dollars)				
<b>Financial assistance to students</b>				
Canada Millennium Scholarship Foundation	2,500			
Canada study grants		100	100	100
<b>Total</b>	<b>2,500</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Support for advanced research and graduate students</b>				
Granting councils		120	135	150
<b>Helping students manage debt</b>				
Tax relief for interest on student loans		80	130	145
Canada Student Loans Program improvements		50	145	150
<b>Total</b>		<b>130</b>	<b>275</b>	<b>295</b>
<b>Helping Canadians upgrade their skills</b>				
Tax-free RRSP withdrawals for lifelong learning		15	40	45
Tax relief for part-time students		25	90	90
<b>Total</b>		<b>40</b>	<b>130</b>	<b>135</b>
<b>Encouraging families to save for education</b>				
Canada education savings grant		150	200	275
<b>Supporting youth employment</b>				
El premium holiday for youth employment			100	100
Youth at risk		50	75	100
<b>Total</b>		<b>50</b>	<b>175</b>	<b>200</b>
<b>Connecting Canadians to information and knowledge</b>				
SchoolNet/Community Access Program/CANARIE	55	60	70	75
<b>Total measures announced in the budget</b>	<b>2,555</b>	<b>650</b>	<b>1,085</b>	<b>1,230</b>

Information from the federal budget's Canadian Opportunities Strategy, provided by the Association of Universities and Colleges of Canada.

fall's competition. Profs. Art Hilliker and John Phillips, Molecular Biology and Genetics, will receive \$61,704 a year for three years to continue their studies on aging. Armed with a new three-year grant worth \$52,346 a year, Prof. Dongwan Yoo, Pathobiology, will

continue investigating viral infection in newborn calves.

Says Rozanski: "Now the challenge is for the province to increase public funding for our universities as the essential step to maintain accessibility and education quality."

BY ANDREW VOWLES

**F**ORMER Guelph-Wellington MP Alfred Dryden Hales, a man whose life was intertwined with the University of Guelph for most of his 88 years, died Feb. 28.

A 1934 BSA graduate of OAC, Mr. Hales first enrolled at the college as a diploma student in 1929, but his links with the University had begun long before that. Born in Guelph in 1909, he grew up just across the road from campus and spent many hours playing on Johnston Green.

As a student at OAC, Mr. Hales maintained an active extracurricular life. He was a member of the college meat judging team that took first place at the International Livestock Exposition in Chicago in 1933. In 1932 and 1933, he played on the OAC football team, which captured the Canadian intermediate intercollegiate championship. He was president of College Royal in his final year.

When he graduated from OAC in 1934, Alf Hales had gained both a bachelor of science in animal husbandry and a lifetime companion — Mary Graham, whom he met at a campus dance in 1931 while she was a diploma student at the Macdonald Institute. They were married in 1936.

Mr. Hales's agriculture degree led him initially to a job with Swift's in Toronto, where he also played football with the Toronto Argonauts for two years, but he returned to Guelph to join the family butcher shop and took over the business in 1944.

Community service was always an important part of his life, and he played a leadership role in many organizations, including the Kiwanis Club and Guelph Chamber of Commerce. He also served as a city alderman in 1956 and 1957. He made the jump to federal politics in 1957 when he was elected Guelph-Wellington MP, a position he was re-elected to time and again for 17 years until he retired in 1974.

Throughout the years, Mr. Hales's ties with U of G remained strong. A life member of the OAC Alumni Association, he served as president in 1956. He and his wife were members of the President's Council and established the Mary and Alf Hales Memorial Bursaries.

John Mabley, vice-president (development and public affairs), who met often with the Hales as they discussed their participation in U of G's ACCESS campaign for student aid, says he was struck by the breadth of their interest in every facet of the University's teaching and research.

"Mr. Hales understood so well the importance of the University and its people to the quality of life and opportunities in the broader community," says Mabley.

As an MP, Mr. Hales convinced the postmaster general in 1974 to issue a commemorative stamp celebrating the centennial of the founding of OAC. That same year, OAC presented him with a Centennial Medal for his dedicated service to his country, his city and his college. In 1990, Mr. Hales was inducted into the U of G Gryphon Club Hall of Fame.

Mr. Hales is survived by his wife; his daughter, Beverly, of Toronto; his son Donald of Illinois; his son David of Waterloo (a 1970 graduate of Guelph); nine grandchildren and seven great-grandchildren. He was predeceased by his son Alfred.



# CLASSIFIEDS

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Large dog cage, portable and collapsible, brand-new, used only briefly, call 654-0233 or send e-mail to pennydem@sympatico.ca.

Custom dog sketches by well-known artist specializing in lifelike animal sketches, 824-1397.

Danby designer refrigerator (Frigidaire), 18 cubic feet, new, still in box, white with pebble finish, glass shelves, 766-4428.

1930s handcrafted solid Canadian rock maple furniture: seven-drawer desk with chair, blanket box, two sin-

gle beds, excellent condition, 763-7834.

1986 Mercury Topaz, automatic, power windows and locks, air, no rust, Glenn, Ext. 6307 or send e-mail to gbenoy@uoguelph.ca.

1994 Suzuki Sidekick, 4x4, red, soft top, excellent condition, 519-928-2469 or send e-mail to sbrebaum@uoguelph.ca.

Pet food, toys and supplies available at Central Animal Facility Building 12, Ext. 4309 or send e-mail to pmavroni@uoguelph.ca.

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Furnished two-bedroom apartment in quiet home, sitting room, private bath, kitchen, shared laundry, two blocks to campus, on bus route, Ext. 6528 or leave message at 822-2336.

New condo townhouse on College Avenue at Janefield, broadloom, three-piece bath, refrigerator, gas fireplace, walk to University and mall, close to bus route, includes hydro, gas heating and cable, 824-1397.

Basement bachelor apartment, furnished if required, separate entrance, 10-minute bike ride and 15-minute bus ride to campus, laundry, parking, non-smoker, no pets, available April 1, \$425 a month inclusive, 837-2227.

Semi-furnished three-bedroom century stone house, 1 1/2 baths, large back room with great windows, hardwood floors, yard, shed, washer/dryer, downtown location, non-smokers, available July 1 to June 30, 1999, \$1,300 a month plus utilities, Jay, 822-3493.

Basement bachelor apartment, separate entrance, walking distance to campus, non-smoker, no pets, available immediately, 824-5753 after 6 p.m.

Clean, quiet building downtown, 1,800 square feet, four bedrooms, full attic, spacious kitchen, private entrance, parking, 15-minute walk to campus, \$950 a month plus utilities, Jim, 824-8010 between 10 a.m. and 5 p.m.

Two-bedroom spacious penthouse in historical stone home near Exhibition Park, professional couple preferred, references required, available May 1, \$899 a month, 824-1773.

Furnished two-bedroom condo in historical building in centre of Cuelph, everything supplied, rent by day, week or month, reasonable rates, available April 1, Carol, 823-1857 or 831-6225.

## WANTED

Single room to rent for four months (September to December 1998), preferably with non-smokers and laundry facilities, Andrea, 826-6904.

Leaf tickets for the March 18 game against Detroit, Ruth, 823-8089 after 5 p.m.

Three-bedroom home with 1 1/2 baths for mature couple with child, south end preferred, well-cared-for

home or will gladly repair/renovate home in exchange for reduced rent, excellent references, needed for April, May or June 1, long-term lease, Debra, 836-4066 or send e-mail to dgreene@housing.uoguelph.ca.

Trucks to Honduras needs a cheap, reliable Toyota 4x4 pickup truck, extra cab preferred, to be donated to a street children's organization in Honduras, Kim, 836-2227.

Two-bedroom house, townhouse or apartment from April 1 to July 31, non-smokers, in Cuelph or a short commute, 240-4488 during office hours.

Used bicycle with training wheels for a three-year-old, Barb, Ext. 2043 or 824-7069.

## AVAILABLE

Piano lessons from patient, experienced teacher for people of all ages, advance at your own speed, 824-1397.

Proofreading and German-English translation services by recent PhD languages and literatures graduate, 836-7920.

Care for your dog in my home while you travel, Cobi, 836-8086 or send e-mail to cdemmers@uoguelph.ca.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Linda Graham on Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@exac.admin.uoguelph.ca. For more information, call Ext. 6581.

## GRAD NEWS

The final examination of M.Sc. candidate David Britton, Zoology, is March 20 at 9 a.m. in Axelrod 265A. The thesis is "The Effects of Insularity on the Population Genetic Structure of *Plethodon cinereus* and *Rana clamitans* in Georgian Bay, Ontario, Canada." The adviser is Prof. Jim Bogart.

The final examination of M.Sc. candidate Brian Cox, Chemistry and Biochemistry, is March 20 at 2 p.m. in MacNaughton 222. The thesis is "Development of an Assay for Estrogenic Endocrine Disrupters Involving the Rat Liver Estrogen Receptor Alpha." The adviser is Prof. Nigel Bunce.

The final examination of PhD can-

didate Ronald Maathai, Chemistry and Biochemistry, is March 25 at 2:30 p.m. in Chemistry/Microbiology 370. The thesis is "The Regulation of Phospholipase A1/lysophospholipase 1 And Phospholipase A2 in *T. brucei*." The adviser is Prof. Alan Mellors.

The final examination of Dan Beniac, a PhD candidate in the Department of Molecular Biology and Genetics, is March 26 at 1 p.m. in Axelrod 222. The thesis is "Electron Microscopic Investigation of Myelin Basic Protein: Lipid Interactions and Its Implications in Multiple Sclerosis." The adviser is Prof. George Harauz.

Interested members of the University community are invited to attend.

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## ARBORETUM

Maple Syrup Days run weekends throughout March (and April 4 and 5 if the sap is still running) and weekdays March 16 to 20 during March Break. Hours are 10:30 a.m. to 4:30 p.m. Events include puppet shows, featuring Lagomorph the rabbit, guided tours of the sugar bush and demonstrations of tapping. Cost is \$3.50 for adults, \$3 for students and seniors, \$2.50 for children. Special group days can be arranged by calling Sue Northcut at 856-2714.

*Two and Two Make Sex*, a comedy written by Richard Harris and Leslie Darbon and directed by John Snowdon, runs at the Theatre in the Trees Saturdays until April 25. Doors open at 6 p.m., showtime is 8 p.m. Tickets are \$45. For information, call Ext. 4110.

## ART CENTRE

The exhibition "Micah Lexier: Self-Portrait as a Proportion" opens March 12 and continues to May 10. Lexier will give an artist's talk March 12 at 7:30 p.m., to be followed by the opening reception at 8 p.m.

## CONCERTS

The Thursdays at Noon concert series in MacKinnon 107 continues March 12 with a student soloists' day, March 19 with the U of G Concert Winds conducted by John Goddard, and March 26 with the U of G Early Music Ensemble conducted by Prof. Mary Cyr.

The U of G Choir, conducted by Marta McCarthy and accompanied by Betty Maher, performs Brahms' *Gypsy Songs* March 20 at 8 p.m. at the River Run Centre. Tickets are \$15 general, \$8 for students and seniors, and are available from the River Run box office at 763-3000 or from the School of Fine Art and Music in Zavitz Hall.

The School of Fine Art and Music and Macdonald Stewart Art Centre present soprano Theresa Thibodeau and pianist Mary Louise Vosburgh March 27 at 8 p.m. at the art centre. The program will include works by Brahms, Handel, Haydn, Puccini, Strauss, Rachmaninoff and Schubert. Tickets are \$10 general, \$6 for students and seniors.

## LECTURES

The School of Fine Art and Music's lecture series on visual arts continues March 16 with Peruvian painter Alvaro Lazo discussing "Via New York: Life, Art and Experiments." "Loosely About the Body" is the topic of Toronto multimedia artist Martha Judge March 18. On March 25, Toronto painter Tony Scherman's topic is "About 1789." The talks begin at noon in Zavitz 320.

The "Media in Canadian Life" lecture series sponsored by the interdisciplinary program in Canadian studies

features Tom Kleinbeernink of the Guelph Campus Co-operative discussing "The Corporatization of Culture" March 26 at 2:30 p.m. in MacKinnon 232.

## NOTICES

The Ontario Farm Environmental Coalition, Ontario Federation of Agriculture (OFA) and U of G's Farming Systems Research Project are sponsoring a session on "ISO 14000 and Ontario Agriculture: Is the Time Right?" March 26 from 8:45 a.m. to 4 p.m. at the Arboretum Centre. Cost is \$50. Send in registration to the OFA c/o David Armitage, 40 Eglinton Ave. E., Fifth Floor, Toronto M4P 3A2. For more information, call Ellen Wall at Ext. 8480.

The International Development Research Centre (IDRC) supports research that focuses on ecosystem management interventions leading to the improvement of human health and well-being, while maintaining or improving the health of the ecosystem as a whole. This year, IDRC will present eight awards valued at up to \$15,000. Application deadline is April 1. For more information, call the Centre Training and Awards Unit of IDRC at 613-236-6163, Ext. 2098, fax to 613-563-0815 or send e-mail to [cta@idrc.ca](mailto:cta@idrc.ca). Visit IDRC on the Web at [www.idrc.ca](http://www.idrc.ca).

The International Development Studies Network (IDSNet) is staging an online essay competition for international development students. Essays must be 2,000 to 3,000 words and must be submitted by April 3. Cash prizes will be awarded in May. For more information, visit the Web site [www.idsnetwork.org](http://www.idsnetwork.org) or send e-mail to IDSNet co-ordinator Ian Davis at "info@idsnetwork.org."

The Guelph Food Technology Centre (GFTC) hosts a session on "Consumer Complaints: Management Strategies and Food Forensics" March 25 and 26 from 8:30 a.m. to 4:30 p.m. Cost is \$445 general, \$378 for GFTC members. On April 2, GFTC presents "Food Ingredient Technology II: Chemical and Natural Preservatives." Cost is \$365 general, \$310 for members. For more information, call Marlene Inglis at 767-5028 or send e-mail to [gftc@uoguelph.ca](mailto:gftc@uoguelph.ca).

The International Development Research Centre seeks two Canadian researchers willing to spend six to eight months of their sabbatical placements in Latin America and the Caribbean, working on collaborative planning of local and regional sustainable development in marginalized regions of Latin America, or conflict resolution and negotiation regarding access to and sustainable use of natural resources. Application deadline is March 31. For guidelines, visit the Web site [www.aucc.ca/english/international/program/minga.htm](http://www.aucc.ca/english/international/program/minga.htm), call Patrick Hyndman at 613-563-1236, Ext. 243, or send e-mail to [phyndman@aucc.ca](mailto:phyndman@aucc.ca).

## SEMINARS

The biochemistry seminar series continues March 12 with graduate student Laura Malcolm discussing "One- and Two-Dimensional NMR Studies of Human Brain Extract." On March 19, the topic is "Studies of the Adenovirus E1A Oncogene Using Molecular Genetic Approaches in Yeast" with Joseph Mymryk of the University of Western Ontario. Andrew Peregrine explains "Biochemical Basis and Epidemiology of Drug Resistance in African Trypanosomes" March 26. The seminars begin at noon in MacNaughton 222.

The Department of Economics presents Mathias Polborn of the University of Munich discussing "Endogenous Discrimination in an Insurance Market" March 13. Elizabeth Maynes of York University examines "Corporate Takeovers in the Laboratory When Shareholders Own More Than One Share" March 20. The seminars run from 3:30 to 5 p.m. in MacKinnon 235.

The Department of Biomedical Sciences presents graduate student seminars Fridays at 12:30 p.m. in OVC 1642. "Telomeres and Telomerase Activity in Bovine Oocytes, Embryos and Fetuses" is the topic of Dean Betts March 13. Sally Benn explains "Regulation of LRP Expression in Rat Hepatocytes" March 20. "The Effect of Heat Stress on the Early In Vitro Bovine Embryo" is the focus of Sheldon Kawarsky March 27.

Norman Salem of the Laboratory of Membrane Biochemistry and Biophysics in Bethesda, Maryland, is guest speaker March 16 in the Department of Human Biology and Nutritional Sciences graduate seminar series. His topic is "Docosahexaenoic Acid (DHA) Formation in Humans In Vivo: Those Who Need It Get It!" On March 23, Gary Spencer explains "Changing Patterns of Growth Among the Evenki Reindeer Herders of Central Siberia." The seminars begin at 11 a.m. in Animal Science and Nutrition 141.

Graduate student seminars continue in the Department of Animal and Poultry Science. On March 17, J.P. Walton explains "The Use of Flax Oil and Antioxidants to Reduce Ascites and Pulmonary Hypertension in Broilers," and Laura Zajchowski considers "Efficient Transfection of Chicken Blastodermal Cells by Electroporation." On March 24, the topics are "Factors Affecting Avian Blastodermal Cell Culture" with Kristin Woods and "Utilization of Test Day Records to Predict Feed Intake of Dairy Cows in Early Lactation" with Xuelu Liu. The talks run from 11:30 a.m. to 1 p.m. in Animal and Poultry Science 141.

Charles Withers of the University of Edinburgh considers "Geography, Science and National Identity in Early Modern Europe" March 17 at 1 p.m. in MacKinnon 314.

Marie Clement is guest speaker March 17 in the Axelrod Institute of Ichthyology's "Loaves and Fishes" seminar series. Her topic is "Electrofishing-Induced Injuries/Estimating Atlantic Salmon Populations." On March 24, Tony Wood focuses on "Fish, Fungicides and the Fraser River." The talks begin at 12:30 p.m. in Axelrod 168.

The Plant Biology Council hosts a seminar series Wednesdays at 3:15 p.m. in Axelrod 259. Next up is Jean Gerrath of the University of Northern Iowa, who focuses on "The Trench Trap" March 18. On March 25, the topic is "Orchid Seed Germination: A Novel System to Study Plant-Fungal Interactions" with Prof. Larry Peterson, Botany.

Christopher Browning of Pacific Lutheran University will give two talks in the Department of History March 23. He discusses "The Holocaust and the War: Adolf Hitler and the Decisions for the Final Solution" at 2:30 p.m. in Axelrod 100 and "The Holocaust and Perpetrator History" at 4 p.m. in MacKinnon 236.

The Department of Physics seminar series runs Tuesdays at 4 p.m. in MacNaughton 113. Prof. Jim Pleva discusses the "Physics of Music" March 17. On March 24, Susan Krueger of the NIST Centre for Neutron Research explains "Neutron Scattering Methods for Studying the Solution Structure of Lipid Bilayers and Biological Membranes."

## THEATRE

Drama students present *Jehanne of the Witches*, directed by Prof. Ric Knowles, March 16 to 21 at 8 p.m. at the Inner Stage in the MacKinnon Building. Tickets are \$6 Monday to Wednesday, \$8 Thursday to Saturday. Two sets of student-directed one-act plays run March 26 to 28 and April 2 to 4 at 8 p.m. in Lower Massey Hall. Admission is \$3. The student-directed play *A Fertile Imagination* runs March 29 to April 1 at 8 p.m. at the Inner Stage. Tickets are \$4.

## WORKSHOPS

Teaching Support Services (TSS) is offering a number of workshops in March. Registration is required by calling Helen Martin at Ext. 2973. TSS and the ethics in science faculty present "Values, Ethics and Wildlife Management" March 19 from 5:30 to 7:30 p.m. at the University Club. Session leaders are Prof. Vernon Thomas, Zoology, and Prof. Bill Hughes, Philosophy. "Communication and Organizational Techniques: The Unique Challenge of Teaching Large Classes in Large Classrooms" is the topic March 20 from 10:30 a.m. to noon in Day Hall 125. Workshop leader is Prof. Andrew Winston, Psychology. Prof. Fred Evers, Sociology and Anthropology, discusses "Capstone Courses: Preparing University Students for the Transition to Work" March 23 from 10:30 a.m. to noon in Day Hall 125. Prof. Ron

Stoltz, Landscape Architecture, and Prof. Norman Gibbs, Microbiology, present "A Curriculum Design and Management Model" March 27 from 11:30 a.m. to 1 p.m. in Day Hall 125.

## COMMUNITY EVENTS

The Guelph Chamber Choir joins forces with the K-W Philharmonic Choir, the Renaissance Singers and the Menno Singers to perform Rachmaninoff's *Vespers* March 28 at 8 p.m. at Church of Our Lady. Howard Dyck conducts. Tickets are \$16 and are available from the River Run Centre box office, 763-3000.

The AIDS Committee of Guelph and Wellington County will hold its sixth annual fund-raising art auction, "A Day with Art," March 28 at the Eaton Centre in the former Moyer Kids Store location. Viewing begins at 6:30 p.m., with the live auction taking place at 8 p.m. Admission is \$15. For more information, call 763-2255.

The Guelph Historical Society meets April 7 at 8 p.m. at St. Andrews Church. Marjorie Durnford discusses "The West End," the Tweedsmuir Women's Institute project.

Guelph Museums presents the Royal Ontario Museum exhibition "Canada at Play: 100 Years of Games, Toys and Sports" at Guelph Civic Museum until April 12. An exhibition of recent landscape paintings by Scott Abbott, Laura Coutts, Jane Graham and Susan Knox runs March 22 to April 16 at the museum.

The Elora Festival book sale committee is looking for donations of books, records, paper ephemera, puzzles, CDs, tapes, games and posters for its annual sale May 2 and 3 at the Elora Curling Club. For pick-up, call 846-5497, 846-2677 or 846-0331.

The Canadian Wildflower Society meets March 18 at 7:30 p.m. at the Arboretum Centre. John Semple of the University of Waterloo discusses "Everything You Ever Wanted to Know About Goldenrods and Asters."

The YMCA-YWCA of Guelph is calling for nominations for the third annual Women of Distinction Awards. Eight award categories are offered. Deadline for submissions is March 23. For more information, call Marie Leone at 824-5150.

The College Women's Club will hold its spring luncheon April 7 at the Victoria Park Golf Club West. Tickets are \$15. For reservations, call 821-3415 by March 25.

The Arkell Schoolhouse Gallery presents a piano, violin and cello trio March 21 and a piano, oboe and violin/viola trio March 28. Concerts begin at 8 p.m. Tickets are \$15. For reservations, call 763-7528.



## THIS ISSUE

**INCLUDED** with this issue is a special eight-page supplement on U of G's preliminary MET operating budget for 1998/99.

**3 ACCESS FUND** helps push giving to record \$12.2 million in 1997.

**4 COLLEAGUES** and friends of the late professor Bill Graf offer tributes in his memory.

**5 CAMPUS** recruiters go the distance.

**6 PHYSICAL** Resources wants to know what you think about its services.



### TINY TAPPER

Young Cassandra Ford takes aim at a maple tree (with a little help from her mom) during Maple Syrup Days at the Arboretum. They were two of the hundreds of people who turned out this month to tap into the secrets of making maple syrup. Organized annually by the company NEST, the Maple Syrup Days program includes guided tours of the sugarbush and demonstrations of tapping and boiling down sap into syrup.

PHOTO BY MARTIN SCHWALBE

## Preliminary MET budget goes to Senate, B of G

*Broad package of recommendations a balanced approach in difficult times*

**F**OLLOWING EXTENSIVE analysis and modelling since the December provincial funding announcement, as well as 50 meetings and cross-campus consultations that will culminate in Senate's final review March 31, the University of Guelph will bring the preliminary Ministry of Education and Training (MET) operating budget for 1998/99 to Board of Governors April 2.

Key to next year's proposed budget are measures designed to close a projected funding gap of \$5.84 million. The proposed solution rests on three main components: increases in enrolment and tuition that would generate an estimated \$2.2 million in net revenue; a combination of cost reductions and revenue increases totalling \$1.94 million; and a "shortfall" of \$1.7 million that will have to be found during fiscal 1998/99.

Following the Senate Committee on University Planning's (SCUP) endorsement of the budget, B of G's Finance Committee approved a motion last Thursday to recommend the preliminary MET operating budget. After discussion at Senate March 31, the budget will be presented to B of G for final approval April 2. (A copy of the preliminary budget, along with SCUP's comments, is included in a special budget supplement with this issue.)

SCUP is highly supportive of the proposed operating budget, says committee chair Prof. Gerald Manning. "This is about as balanced an approach as one could manage in these difficult times," he says.

The budget's approach to enrolment and tuition fees is based on recommendations by the Enrolment-Management Committee (EMC). EMC, whose 11 members include administrators, faculty and students, incorporated several guiding principles into those recommendations:

- accessibility;
- fiscal responsibility;
- an attempt to preserve quality of programs in the face of chronic underfunding;
- a consultative process involving faculty, staff and students; and
- unanimity on a complete package of recommendations.

EMC recommended that first-year enrolment to U of G be increased by 325 students, specifically in programs for which deans have identified capacity. This would bring next fall's total Year 1 intake to 3,100 students — below the historic high of 3,600 students recorded in 1991/92, when the University had more faculty and staff.

EMC noted that Guelph's share of general secondary school applicants and first-choice applicants grew by 15.9 per cent and 15 per cent respectively over the past two years, placing U of G first in growth of both categories among Ontario's universities. For that reason, EMC believes the enrolment increase will have a minimal effect on U of G admission standards.

EMC recommended against deregulation of current programs next year and against differentiation beyond the three U of G undergraduate programs that already charge a higher fee. In an attempt to attract

more graduate and international students, EMC has called for a freeze on tuition fees for all graduate students next year and a reduction in fees over two years for international undergraduates. And it has recommended increasing next year's domestic undergraduate tuition by 7.5 per cent or \$242 over two semesters for most students — below the 10-per-cent maximum average allowable increase for regulated programs.

"SCUP agrees with the administration's recommendation to avoid increasing tuition to the maximum allowed by the government, and supports recommendations to freeze

tuition fees for all graduate programs and to decrease most tuition fees for international undergraduate programs," says SCUP in its comments on the budget.

Taken together, these measures would bring in an extra \$2.2 million in net enrolment and tuition revenue next year after allocating \$800,000 of the proposed increase to student aid. Last year, the province required postsecondary institutions to set aside 30 per cent of any tuition increase for student financial assistance. The \$2.2 million in net revenues represents 38 per cent of the solution to the \$5.8-million gap,

with the incremental tuition alone representing about 25 per cent of that solution.

The budget also proposes an increase of \$75,000 for awards for international students and students not eligible for provincial tuition re-investment or ACCESS campaign support, and spending an additional \$125,000 to expand the University's efforts to recruit international students.

Although it wasn't easy to come up with a broad package of recommendations, EMC chair Prof.

See **THREE** on page 6

## Budget built on wide consultation

*Administration gets feedback in 50 meetings with campus groups*

**U**OF G's preliminary operating budget for 1998/99 contains a number of measures that arose during 50 meetings held by senior administrators with various groups across campus since the beginning of December. Those consultations, within and outside the University's normal governance process, included 29 meetings with representatives of student groups, including two student-organized open forums.

At a January meeting of the Student Senate Caucus, for example, Prof. Alastair Summerlee, dean of graduate studies and chair of the Enrolment Management Committee (EMC), discussed the preliminary budget and asked for feedback on changes to enrolment and program

differentiation, expenditure reductions and tuition increases. A subsequent meeting of the Student Executive Council to discuss the preliminary budget and options for student consultation led to suggestions for holding an open forum — and eventually a second such gathering — as well as establishing a special working committee to review elements of the preliminary budget that were not being considered by EMC.

Senior administrators — primarily president Mordechai Rozanski; Prof. Iain Campbell, provost and vice-president (academic); Summerlee; Prof. Constance Rooke, associate vice-president (academic); Nancy Sullivan, vice-president (finance and administration); Brian Sullivan, as-

sociate vice-president (student affairs); John Miles, assistant vice-president (finance); and Prof. Ken Grant, director of institutional analysis and planning — also met with faculty and staff representatives, including dean's councils for each of the University's colleges. An open forum was held for staff Feb. 17, and the preliminary planning assumptions and budget were presented to the Consultative Forum. Normal governance consultations about the preliminary budget involved discussions beginning in January with Senate and its Committee on University Planning and the President's Budget Advisory Group (PBAG).

See **AD HOC** on page 6





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Dr. Jim S. Quinn, McMaster University, 9:00am  
Dr. Michael Ruse, University of Guelph, 1:00pm

Wednesday, April 1, 1998 9:00am-5:00pm  
Laboratory Services Division (LSD)  
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## UNIVERSITY DETERMINES MIX OF JOBS, SAYS UGSA PRESIDENT

I AM WRITING IN RESPONSE to the letter from Linda Robson in the Feb. 11 issue of *At Guelph*.

Let me state first that the *University of Guelph Staff Report* is a newsletter for U of G Staff Association members and retirees and, as such, represents opinions and information by and for the membership. That others in the community read our newsletter is gratifying.

I infer from Linda Robson's letter that she has interpreted my original article as an attack on employees, either part-time or temporary full-time, when, in fact, nothing could be further from the truth.

The whole purpose of my article was to state my belief that the University administration does not value its employees and, in fact, finds it beneficial to keep part-time and temporary employees even when enough "work" exists to create more regular full-time positions.

My belief that this is a goal of the institution has been confirmed by the administration's response to my article, which states, in part: "It is unrealistic to expect continuation of the same nature of employment that existed previously in the public sector. Today's financial reality requires all parties to recognize that work and the mix of jobs to support that work must be addressed in a different fashion." I interpret those statements to mean more part-time jobs and fewer opportunities for full-time employment, at least for the lowest-paid employees.

I am encouraged that Linda Robson has had a positive experience with administrative assistants and secretaries and sincerely hope that staff coming from "redundant" positions have had similar experiences. She says she has "had occasion to be designated temporary full time, and the UGSA has been happy to take union dues from my paycheque, even though the union can do very little for me because I am on a limited appointment." I must

point out that membership in the union, even on a temporary basis, ensures that the rate of pay for the job being done is no less than the minimum of the band for the job, which in most instances is substantially more than the hourly rate for part-time employment. Additionally, even temporary union positions have benefits not available to part-timers. Linda Robson's letter confirms the union's position that many — if not most — people employed in part-time UGSA work or temporary full-time positions desire full-time employment, and I will emphasize again that it is the employer (the University) that determines the "mix of jobs to support that work" and not the union. The union continually monitors the employment situation on campus, and it is our belief that the University administration could improve morale and save substantially on grievance and arbitration costs by treating all its employees with the respect they deserve.

Mark Evans  
President, UGSA

## Leaving No Stone Unturned

*New collaborative centre offers urinary stone analysis for companion animals*

Humans aren't the only victims of painful urinary stones — dogs and cats are affected, too. It's difficult to pinpoint the problem in animals, but diagnosing, treating and preventing urinary stones will now be easier for veterinarians across the country, thanks to the Canadian Veterinary Urolith Centre at U of G.

Launched in January, the centre is a collaborative new service in companion animal urolith (urinary stone) analysis involving Laboratory Services and Guelph-based Veterinary Medical Diets. The centre offers four sophisticated microscopic techniques to analyse and diagnose urinary stones: Fourier transform infrared spectroscopy, polarizing light microscopy, X-ray microanalysis and scanning electron microscopy. Used in combination for stone diagnosis, these methods offer an unparalleled level of accuracy in identification, says Arlene Yee, manager of analytical

services in Laboratory Services.

"The state-of-the-art capabilities and staff expertise at the centre are unavailable elsewhere in Canada," says Yee. "We are very excited at the prospect of providing this unique service to veterinarians."

The centre also draws on technical expertise of the Department of Chemistry and Biochemistry in the use of X-ray crystallography.

Without access to high-tech microscopic equipment, vets often find it difficult to diagnose urinary stones. Now they can collect calculi (urolith) samples from an animal's urine or urinary bladder and send them to the centre for analysis. From this analysis, a urinary calculus database will be created that contains technical reports of the types of stones identified in different animal breeds. Veterinary Medical Diets is funding the analysis and will use information in the database to provide practitioners with clinical interpretations of the results, such

as how to avoid its recurrence.

"Veterinary Medical Diets is delighted to be able to make this contribution to veterinary medicine in Canada," says Brent Matthews, vice-president of operations for the company. "Over time, we will be able to provide prevalence reports to the Canadian veterinary profession that will be instrumental in developing a better understanding of these disease conditions and, we expect, in reducing their incidence."

BY SARAH HAINES  
OFFICE OF RESEARCH



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# SALARIES TO BE DISCLOSED MARCH 31

Thirty-nine U of G employees were paid \$100,000 or more in 1997. Their names and salary information will be made available March 31, as required by the Public Sector Salary Disclosure Act. These individuals represent 1.4 per cent of full-time U of G employees. Thirty-three of those on the list, or 85 per cent, are faculty and academic

administrators with faculty rank. Nineteen are faculty, including departmental chairs, and 14 are faculty who serve as senior academic administrators. Six, or 15 per cent, are staff who hold senior administrative responsibilities.

The act requires all public institutions in Ontario to disclose the names of employees who are paid \$100,000 or more, along with the office or position held by the employee, the amount of salary paid by the employer and the amount of benefits reported for the employee under the Income Tax Act. This is the third year the act has been in effect.

A copy of the 1997 list will be available at the Reserve Desk of the McLaughlin Library and at Communications and Public Affairs on Level 4 of the University Centre. The Ministry of Finance will post the province-wide listing for all public institutions on its Web site, accessed through "gov.on.ca."

## JUDICIAL COMMITTEE HEARINGS CONTINUE

Judicial Committee hearings continued March 25 involving a group of students facing two charges under the student rights and responsibilities policy, including a charge that they disrupted a Board of Governors meeting in March 1997. Hearings are scheduled to continue April 4.

## COLLEGE OF ARTS LAUNCHES TEACHING AWARD

Members of the University community are invited to nominate an instructor in the College of Arts for a newly established award for teaching excellence. Full-time, part-time and sessional faculty, as well as graduate students responsible for a significant part of a course, are eligible for nomination. The award is designed to honor excellence in classroom teaching, teaching innovation, curriculum development, course development, student advising and any other activity associated with teaching. Supporting documents may include teaching materials, student recommendations, testimonial letters from colleagues, student evaluations (with permission of the instructor) and any other relevant material. Nominations must be submitted to College of Arts dean Carole Stewart by April 30.

# A Record Year for Gift Support

ACCESS Fund helps push giving to \$12.2 million in 1997

MORE THAN \$6.6 million received, through the ACCESS Fund helped push last year's gift support to U of G to a record \$12.2 million — \$11.34 million in cash and \$865,000 in gifts-in-kind.

The previous watermark for gift support came in 1986 — the first year of U of G's last capital campaign — when the University received \$11.3 million in cash and \$200,000 in gifts-in-kind.

"Staff and volunteers are of course excited about the unprecedented increase in support," says John Mabley, vice-president (development and public affairs). "Perhaps the greatest source of pride is that annual giving did not decline and, in fact, improved slightly over 1996, despite the high participation in ACCESS pledges. It is clear that many loyal donors are choosing to support more than one U of G priority in a year, and that should be wonderful encouragement to the entire campus community."

Under the one-time Ontario Student Opportunity Trust Fund matching-grant program, U of G received pledges for student assistance

until March 1997. Pledges must be converted into donations no later than March 1999 and will flow into the endowment as they are received.

"A portion of ACCESS commitments were registered as bequests that have yet to be realized," says Mabley. "We won't know until March 1999 — the conclusion of the matching period — if all pledged bequests will be realized."

Interest from the endowment will fund student aid. In 1998/99, the endowment will begin awarding almost \$500,000 in ACCESS bursaries and needs-based scholarships to students, with half the awards granted through individual colleges and the remainder through the University's central awards program.

Noting that thousands of alumni and friends recognize the need to maintain quality teaching and research in the face of declining public funding of postsecondary education, Mabley says the results of 1997 "prove that a growing number of the University's alumni partners have already determined that they want to do more to ensure that the quality of

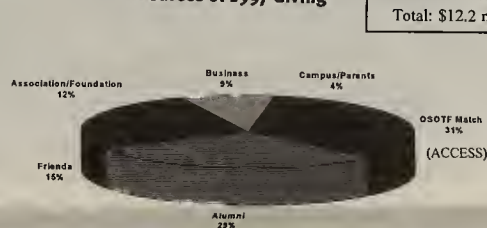
education they received here is available far into the future."

He says last year's success bodes well for the University's first major multi-year campaign in more than a decade. This spring, Prof. Constance Rooke, associate vice-president (academic), and a campaign needs advisory committee will guide the development of an inventory of University-wide funding needs and priorities through a survey of the U of G community. The University's academic needs are expected to form the core of the campaign.

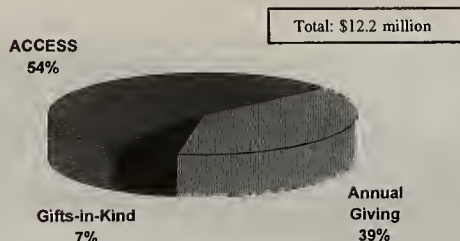
The preliminary priorities will then be "test-marketed" through a strategic feasibility survey. "Eighty to 100 of the University's leading volunteers and friends will be invited to respond to those internally generated priorities to determine in advance the likely response if those needs should be promoted in the University campaign program," says Mabley.

BY ANDREW VOWLES

## Sources of 1997 Giving



## U of G Gift Support: 1997



## Annual Giving Designations for 1997



## THANK YOU

Chuck Cunningham  
Registrar  
Prof. Bruce Holub  
Human Biology/Nutritional Sciences  
Sylvia Willms  
Department head, Hospitality

Prof. Jim Shute  
Director, Centre for International Programs  
Prof. John Walsh  
Director, HAEA  
Prof. Rickey Yada  
Acting chair, Food Science

Your volunteer leadership for the 1997 Campus Fund appeal helped make total giving results last year the best ever in the history of the University of Guelph.

## PEOPLE

### FOOD SCIENTIST KEYNOTE SPEAKER AT CONGRESS

Prof. Doug Powell, Food Science, and William Leiss, co-authors of *Mad Cows and Mother's Milk: The Perils of Poor Risk Communication*, will be keynote speakers at the 1998 Congress of the Social Sciences and Humanities (formerly the Learned Societies Conference), which runs May 27 to June 6 at the University of Ottawa. Other keynote speakers are Rohinton Mistry and James Walker. More than 7,000 scholars from Canada and around the world are expected to attend.

### KUDOS FOR PHD PHYSICS STUDENT

At the March meeting of the American Physical Society in Los Angeles, PhD student Kari Dalnoki-Veress of the Department of Physics received the Frank J. Padden, Jr. Award from the Division of High Polymer Physics for excellence in polymer physics research by a graduate student. Dalnoki-Veress's supervisor is Prof. John Dutcher.

### MUSIC PROF TO VISIT DENMARK UNIVERSITY

Prof. Ed Phillips, Fine Art and Music, has been invited by the department of music of the University of Aarhus in Denmark to be visiting professor of music theory in May. He will give lectures on the application of Schenkerian analysis and set theory and will work with undergraduate and graduate students.

### STUDENT CAPTURES THIRD PLACE IN PUBLIC SPEAKING

Karim Jaffer, a member of U of G's Debating Society, placed third in public speaking at the national debating championships this month at the University of Alberta. Over the past five years, U of G has consistently ranked in the top five in public speaking in the country.

### CSS DEAN VISITS ISRAEL

Prof. David Knight, dean of the College of Social Science, participated in an international political geography conference on "Geopolitics and Globalization" in Israel recently. He also spent time in Jerusalem and the West Bank, where he talked with Palestinian authority leaders, including the Director of the Palestinian Centre for Regional Studies. Knight also spoke with international student officers at three universities to identify opportunities for U of G students to study in Israel.

### HEALTH-CARE SYSTEMS FOCUS OF RESEARCH

Prof. Alun Josepb, Geography, spent part of his study leave in New Zealand continuing with his research on the health-care system there, which he is comparing with Ontario's system. He is currently in the United Kingdom, visiting universities and research facilities.



# REMEMBERING BILL GRAF

*"A relentless optimist with a positive outlook in all his undertakings, he would go that extra mile to stimulate, encourage, coach and get the best out of people."*

BY JORGE NEF

*Editor's note: This week's "Insight" is a special tribute by colleagues and friends of political science professor Bill Graf, who died Feb. 25. A campus memorial service was held in his honor March 27.*

IT IS EXTREMELY DIFFICULT to summarize an individual's life in a few lines. It is especially hard and painful when those lines are also a final farewell to someone who has been a unique colleague and a dear friend.

Bill Graf's untimely death at 53 years of age has truncated a distinguished career at the point of its greatest creativity and reflection. It has also left a feeling of loss and a vacuum among those who knew him and were touched by his intellect, wisdom and personal kindness.

I met him in 1980 when he first came to Guelph, although I had learned through respected colleagues at other universities that Bill would be a most valuable "acquisition" and a real contribution to the life of the department. These predictions proved to be right, but Bill Graf also proved to be much more than an academic asset with superb performance and credentials. There was in him the quiet serenity, the inner generosity and the outright fairness of someone whose professional and human goals transcended the horizons of stultified intellectuality and simple careerism.

This particular quality of character was clearly perceived by his students, who constituted Bill's true vocation. He was, above all, an educator.

A relentless optimist with a positive outlook in all his undertakings, he would go that extra mile to stimulate, encourage, coach and get the best out of people. He used to say he loved teaching because he learned from his students. This, in him, was not a platitude or false sense of modesty. He truly believed in an open, continual, probing and critical process of growing awareness, where we are all at the same time teachers and students and learn from each other. His entire life was a celebra-



tion of knowing as the practice of freedom.

This profound contribution to teaching was recognized by students, colleagues and alumni when he was nominated for, and received, the 1989 University of Guelph Faculty Association Professorial Teaching Award.

But certainly there was much more to Bill's multifaceted scholarship than his being a distinguished professor, one of the very best I have known. He was also an intellectual innovator in his research and publications. In his lifetime, he produced numerous excellent, well-respected and widely cited works on European and African politics, on development, on ideologies, on the state and in numerous other fields.

All this gave him an acknowledged academic leadership,

both within and outside the University community. In 1990, these attributes and his recognized openness and fair play were central in his being chosen as chair of the Department of Political Science. In this position, Bill excelled in giving the department a solid and respectable direction and in creating an atmosphere of co-operation, trust and effective professionalism. This resulted in a quantum leap in faculty morale and consolidation of solid and truly world-class graduate and undergraduate programs.

After leaving the chair in 1996, Bill got deeply involved in many other projects and devoted his prodigious energies to teaching and research. He completed a work on contemporary political ideologies, he revised and rewrote his already acclaimed book on the Nigerian state, and he had been working hard on an innovative and outstanding proposal for a program on international studies.

We had met on a Sunday late in February, and we talked over some tea about future plans. We were to meet on the following Thursday to further discuss the international studies proposal as well as to outline a joint piece on globalization and the state. This meeting would never take place.

I will always remember Bill as a role model of a true scholar — a progressive thinker, a true internationalist, a man of enormous sensitivities concerned with the problems of injustice, discrimination, abuse, ecological destruction and repression. I also remember him as a kind, fair, warm and decent human being. He never feared life and its challenges, and he always faced them courageously, honestly and head on.

With his passing, his legacy now acquires the shining light of things deep and transcendental. All those of us who shared the privilege of his unpretentious greatness are the bearers of an honorable tradition that must not perish.

*Prof. Jorge Nef is a faculty member in the Department of Political Science.*

## A SERIOUS WARRIOR FOR THE LIBERATION OF HUMANITY

Bill Graf died as he lived — with his boots on, getting on with it. For Bill, the meaning of life began with the sheer joy of living whole — whether as a Junior A hockey player in his youth in his native B.C. or as a laughing tennis partner with his colleagues, whether as an internationally recognized scholar in contemporary German and Nigerian politics or as the beloved master teacher of University of Guelph students at every level.

Bill Graf is a man who lives on through his passing. Underneath the joie de vivre of his giving that gladdened those he touched, he was a serious warrior for the liberation of humanity across classes, gender and races, and against the privileged forces of oppression that fellow academics do not in general like to expose. Here, he lived beyond himself, like an oasis in an often careerist and petty academic culture that, alas, dies in another way. Bill Graf was the most courageous and articulately informed member of the University I have had the pleasure to witness whenever the chips were down between this death-streak of the academy and the exalted ideals on which it is founded.

Bill Graf bore the larger flame of the University with a rare combination of amiable grace and adamant depth of hard-won understanding that no university can do without. He sometimes referred to himself as "a Marxist." We should, in his memory, consider what it means. To begin with, it means the surrounding culture will attack you for what you are not, from a conditioned mindset that once

attacked witches. With Bill Graf, being a Marxist meant, on the most basic level, that he saw through the ideology of the capitalist system as a discerning scholar does, took the side of the oppressed, not the oppressor, in the politics of this condition, and devoted his rich scholarly abilities to explaining the underlying patterns of facts that he unearthed as a world-class political scientist.

That is what a university is for — to enable and celebrate such quests for truth in the teeth of prescribed doctrine and its office holders. That is what Bill Graf gave us most of all. He fulfilled the University's mission. Now let us hope that what he stood for can live on without his breath any longer with us.

*Prof. John McMurtry, Philosophy*

## A KIND AND MORAL MAN

If it can be said that intellectual integrity wed to deep compassion represents the ideal blend of the academic, Bill Graf came close to perfection. Widely published, he enjoyed an international reputation in political theory and in studies of fascism and development. What brought us together initially was our shared research interest in Nigeria. It was immediately obvious that I was in the company of a fine intellect.

It took me a while longer to fully appreciate the gentle, considerate and generous manner in which he conducted all aspects of his professional life, especially involving his students, to whom he was devoted.

Somewhere along the line — probably on the tennis court — our relationship changed

from colleagues to friends. On sunny afternoons too many to recall, we hit the courts on the run, ignoring our old legs, dashing like mad fools for unreturnable forehands, committing every sin in the tennis coach's handbook, hut alive and glowing with the sheer glee and exuberance of good sport and good company.

For those who didn't know Bill well, he will be remembered as an outstanding scholar, teacher and administrator. I shall grieve for a kind and moral man, warm and tolerant, whose sense of humor and contagious chuckle were never far from the surface. Bill Graf, my friend, was one good human being.

*Prof. Stan Barrett,  
Sociology and Anthropology*

## A SOURCE OF SUPPORT AND SCHOLARLY INSPIRATION

I was fortunate enough to know Bill as my teacher, colleague and friend. In his case, however, the lines between these roles were very thin. He had a wonderful way of treating students with respect while challenging them to put forth their best critical work. As a colleague, he was a source of both great support and scholarly inspiration.

To Bill, the world was a place both immediately political and politically unjust. He believed the progressive forces of history had yet to play themselves out. His fascination with this endless project extended his interests into the areas of development studies, the history of imperialism and emancipation, democratization, gender equality and many others. His teaching and writing in these areas, and the

many pedagogical discussions we shared, have proven formative to me.

The overwhelming student response to his death suggests this is, indeed, a widespread legacy. Despite all of this, it may well be his sense of humor we will miss the most. He refused to take himself too seriously and was as generous with amusing tales as he was with his critical insight.

*Prof. Peter Stoett, Political Science*

## HE HAD HEART FOR EVERYONE

A travel agent crossing the divide between east and west long before the walls of the Cold War came down, Bill Graf always worked his way forward, but never forgot where he came from. His sense of self evoked outreach to others, his sense of self was always as a part of the world of humanity.

Ever willing to help, Bill Graf found it hard to say no. His sense of self, his sense of responsibility caused him much overload. But his mind was inventive and his shoulders were strong.

I have known Bill as a friend, as a scholar, as a teacher and as a humanist. We played tennis, we skied together, we laughed together. We talked politics, we talked about the ills of the world, we thought about the future. For Bill, that future was to be, yet to be, a better world for all of humanity.

Close, very close, and lovingly entwined with his wife and daughter, Ruth and Amanda, he had heart for everyone. We are deeply saddened by his passing. We are profoundly richer for his being.

*Professor emeritus Henry Wiseman,  
Political Science*



## IN THIS ISSUE

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COU and executive heads lobby for increased funding.
- 8 MEASURES OF EXCELLENCE**  
*Maclean's* writer Ann Dowsett Johnston speaks out on maintaining excellence in postsecondary education.

## Special Supplement on the Budget

**A**FTER MONTHS OF ANALYSIS, modelling and a campus-wide consultation, the University of Guelph's Senate and Board of Governors will review the 1998/99 preliminary Ministry of Education and Training (MET) operating budget March 31 and April 2, respectively.

In presenting the preliminary budget for review and comment, the Senate Committee on University Planning (SCUP) outlines the constraints faced by Ontario universities in light of the government's failure to remedy the chronic underfunding of higher education. SCUP's full report to Senate, outlining the funding environment and the principles of accessibility and quality that underlie the University's recommendations on enrolment and tuition, is reprinted below. This supplement also contains major portions of the preliminary 1998/99 MET operating budget, starting on page 3. The full preliminary budget is

available on the Web at [www.uoguelph.ca](http://www.uoguelph.ca).

It is important for the University community to understand the context in which these often difficult financial decisions are made. The proposed solutions are less than desirable. The best solution is increased public funding. In this regard, the Council of Ontario Universities (COU) proposal to the Ontario government — "Strategic Reinvestments in Ontario's Universities" — paints a vivid picture of the extent of underfunding of postsecondary education in Ontario and urges the government to make strategic reinvestment in faculty excellence, student assistance, research renewal, facilities and infrastructure renewal, and university libraries. The proposal, which is reprinted on page 7, was developed by COU in conjunction with the executive heads of all Ontario universities and is only one part of an extensive government lobbying and media and public awareness

campaign conducted by the council and the executive heads over the past few months. As a member of COU's executive committee, president Mordechai Rozanski has helped advance these efforts. A summary of these advocacy efforts appears on page 8 of this supplement.

Finally, we reprint with *Maclean's* magazine's permission Ann Dowsett Johnston's column "Measure of Excellence" as evidence that there is reason to be optimistic that this message is indeed being spread and may be heard. (See page 8.)

The bottom line? Although the University of Guelph has developed a preliminary budget that does all it can to protect both accessibility and the quality of this institution, again the real solution lies in increased public funding of Ontario's universities.

Darlene Frampton  
Director, Communications and Public Affairs

## SCUP's COMMENTS ON THE 1998/99 MET OPERATING BUDGET

**T**HE SENATE COMMITTEE ON University Planning (SCUP) presents the University of Guelph 1998/99 preliminary Ministry of Education and Training (MET) operating budget for review and comment. This budget is a preliminary budget; the final budget will be presented to Senate in the fall semester after confirmation of fall enrolment figures.

## THE PROVINCIAL ANNOUNCEMENT

The University budget is constrained by the provincial government's failure to remedy the chronic underfunding of higher education, as recommended by its own Advisory Panel on Future Directions for Postsecondary Education, which recommended that funding be increased to the national average (i.e., by \$490 million). This inaction by government means that Ontario universities retool, per capita, the worst funded in the country — ranking 10th out of 10 among the provinces.

SCUP was distressed with the provincial government's two-year announcement, which calls for at best a zero-per-cent increase in the grant for 1998/99 and a one-per-cent increase next year. Despite repeated requests from the Council of Ontario Universities (COU), MET has failed to provide a guarantee of stable grant funding over the two-year period. The government suggests that the freeze in the grant will somehow allow universities to operate without change from last year. But taking into account inflation and the fact that for the first time, Ontario Student Assist-

ance Program funding has been combined with the transfer grant, the net result of this announcement is a further real decline in government funding to our university. This decline occurs after five successive years of government disinvestment in higher education as evidenced by a \$33.4-million reduction in U of G's operating funding. Once again, the University is forced to find ways to address a shortfall, rather than begin the process of reinvesting for the future.

The budget preparation was further hindered by the fact that the University has not yet received confirmation as to the level of Guelph's share of the MET grant, nor the value of the pay equity grant. The ability of the administration to prepare and plan a fiscally responsible budget is severely diminished by the government's continued unwillingness to appropriately fund higher education, to provide critical funding information prior to the start of the fiscal year, or to guarantee that its decision to fold OSAP funding into postsecondary funding will not result in a decline in overall support in 1998/99 and 1999/2000.

It is incomprehensible to SCUP, as it is to the administration, that the provincial government does not recognize the critical need to fund higher education adequately. In an age of knowledge growth and innovation, Ontario's social and cultural needs — as well as its economy — require highly educated young people and superior research and development programs. Funding reductions will

continue to adversely affect the quality of the educational experience in Ontario and may have lasting consequences. It is also clear that the government fails to recognize the impact on students of the increasing cost of education. Student demand for OSAP loans continues to grow, and default rates are on the rise, yet the government places universities in a position where they must further increase tuition, entering into another round of the vicious cycle.

The original coracop between the government and universities was that in return for sustained public funding, universities would remain accessible and high-quality institutions committed to learning and research. The universities have maintained their part of the compact, but over the last two decades, while enrolment has increased by some 40 per cent, per-capita funding has decreased by 38 per cent. The consequences have been a decline in quality and greater student debt.

SCUP is also alarmed by the government's decision to bundle the OSAP envelope with the MET operating grant. This is a deliberate action on the part of the government to download its costs. If OSAP costs increase at colleges, universities or private vocational institutions, and the overall funding remains constant, the net grant to universities declines.

## GUIDING PRINCIPLES

The budget of the University of Guelph has been shaped by a number of principles that reflect our values. The first is accessibility — to

make reasonable efforts to allow qualified students to enter and continue at the University of Guelph without onerous debt burdens. SCUP agrees with the administration's recommendation to avoid increasing tuition to the maximum allowed by the government, and supports recommendations to freeze tuition fees for all graduate programs and to decrease most tuition fees for international undergraduate programs.

The second principle is to strive to maintain the quality of the institution.

The third is fiscal responsibility, but to avoid, where possible, across-the-board base cuts, recognizing that one-time or short-term solutions will have to be remedied eventually with base adjustments if increases in future funding cannot be achieved.

The fourth is to make the budget process as transparent and consultative as possible.

## THE BUDGET PROCESS

SCUP's involvement in the budget process was twofold:

- Four members of SCUP (two students and two faculty) sat on the President's Budget Advisory Group.
- SCUP as a full committee received and commented on the initial budget shortfall, the Enrolment Management Committee's (EMC) guiding principles, EMC's recommendations, the options for addressing the remaining shortfall, and the presentation of the final budget for submission to the Finance Committee, Senate and Board of Governors.

## THE PROBLEM

The budget process began with a \$5.84-million projected gap. This takes into account the one-time cost savings of the negotiated pension contribution holiday. The underlying base problem, therefore, is closer to \$9 million.

## THE SOLUTION

The solution to this shortfall includes reasonable increases in enrolment, but not at the expense of a drastic lowering of cutoffs, higher tuition fees for undergraduate students, but not to the allowable maximum; additional support to the operating budget from ancillary units; and elimination of several vacant positions (primarily faculty) that had been identified for deletion in the five-year plan, SERP and CSR (Common Sense Revolution) exercises, and that the provost had hoped to "rescue" as a matter of maintaining quality.

SCUP recognizes, however, that many of the decisions are only short-term solutions. SCUP shares the administration's concern that none of the solutions deal with Guelph's need to address faculty renewal, to enhance our research infrastructure, to maintain the physical plant and, particularly, to reconfigure our teaching space to take advantage of innovative educational technology. They also do not address the ongoing base problem that is now being covered by a negotiated pension contribution holiday. Moreover, the increase in enrolment will necessitate increasing

*Continued on page 2*



# SCUP's Comments on the Budget

Continued from page 1

class sizes, which, unless we are very creative in our methods of teaching, will have a negative impact on the quality of education.

Finally, increases in tuition will have an impact on both accessibility to higher education and the debt loads of our graduates. SCUP believes the University's commitment in the area of needs-based financial aid will help in supporting those students who find the increased tuition difficult to cover. But non-repayable government student assistance is also required.

SCUP has reviewed the proposed solutions to the shortfall and is supportive of the administration's recommended mix of options that include revenue enhancements, expenditure reductions and a request to the Board of Governors to support a bridging strategy. SCUP agrees with the administration that if base funding is not increased and revenue strategies involving enrolment increases do not remedy the basic structural budget needs, more drastic measures will have to be instituted, including base reductions; the University cannot long sustain short-term solutions.

## REVENUE INCREASES

### a) Enrolment

SCUP supports the proposal to increase Semester 1 student intake by 325 students over the 1997/98 base. This will increase Semester 1 intake to 3,100. Although this will result in an increase in overall enrolment, we are still below the 3,600 Semester 1 intake in 1990/91, when, admittedly, we had more faculty. EMC, the provost and college deans are to be commended for the work they have done to date to determine which programs can best accommodate additional numbers with minimal additional cost or drastic lowering of cutoffs.

SCUP recognizes that the increased intake will create pressure on our facilities, faculty and staff, but believes the increase must be one of the options employed to deal with the shortfall. SCUP is concerned particularly about the impact of the increased enrolment on the use of large lecture theatres. The Board of Undergraduate Studies has been asked to review the use of the slot system to ensure that we are using our space effectively.

### b) Tuition

The government announced that tuition could increase by an average of 10 per cent a year for each of the next two years for regulated programs; that programs could be differentiated; that complete deregulation could take effect in certain — yet to be identified — professional programs and all graduate programs; and that 30 per cent of any new tuition revenue must be directed to student aid.

SCUP supports EMC's recommendation that we not differentiate any new programs at this time, nor deregulate any of our graduate or professional programs (beyond the Senate-approved executive MBA). Although SCUP reserves the right to review such options at a later date, we

would benefit from further study prior to implementing such options.

Given the budget situation, SCUP agrees that tuition must rise. Like EMC, however, it opposes tuition increasing to the maximum. SCUP was impressed with the thorough review undertaken by EMC in this regard. The tuition proposal takes into consideration issues such as accessibility, anticipated competition, enrolment trends, debt loads and the residential nature of Guelph.

It proposes that the University continue to move toward needs-based awards; by fall 1998, almost 50 per cent of Guelph's awards will have a needs component. This strategy helps to ensure that our awards are used to support those most in need of financial assistance.

The combination of increased tuition and enrolment accounts for a net of \$2.2 million (after student aid is set aside) or 38 per cent of the \$5.84-million problem. It also recog-

to ancillary units (\$6.9 million annually). In addition, Parking and Hospitality Services provide approximately \$750,000 per year to assist in repaying current debt-servicing costs of construction of several academic buildings in the 1980s. For this coming year, these two units will be asked to contribute between them an additional \$300,000 to the operating budget on the understanding that the increased revenue does not have an onerous impact on students.

found to deal with the structural problems in the budget.

### a) Asking the board to

#### approve a limited shortfall

SCUP supports the administration's approach of presenting a budget that includes "unallocated savings" of \$1.7 million on the understanding that this money must be found during the year to balance the budget. The only other solution would have been to require base cuts now that would, among other actions, likely result in the loss of positions. If efforts involving new revenues, year-end savings and expenditure controls are not successful by the November board meeting, budget cuts may be necessary. Information on the final situation will be clearer in late fall and shared with the community at that time.

## INITIATIVES

Once again, the operating budget provides little in the way of support for initiatives. This reflects the debilitating impact of the underfunding that increasingly robs us of the flexibility to adapt to change and to create change. The dilemma is that the University, to remain strong, must prepare for the future. For this reason, resources are being directed to support our recruitment efforts for international students. It is critical for the future health of this institution that we attract back the international student enrolment that we have seen in the past. Increasing the enrolment of international students is an important factor in meeting our strategic direction of internationalism.

SCUP welcomes the administration's attempt to invest in library acquisitions and deferred maintenance, even though both investments are far too modest for the need.

## THE FUTURE

Overall, SCUP commends the Administration for its transparent and consultative budget process and for the multi-pronged approach it has taken in dealing with the gap. SCUP appreciates that the proposed solutions recognize both financial realities and the values of our university.

That being said, it is becoming increasingly difficult to prepare for the future when, year after year, all budget decisions revolve around how to address a shortfall. The continual cuts of recent years have resulted in the progressive weakening of all units and programs. There is evidence that high-quality students and faculty are leaving Ontario for institutions in other provinces and outside of Canada.

SCUP urges the University community to join the Administration in opposing the continual erosion of support for postsecondary education. We must do our part in sending a public message about the implications of underfunding.

Moreover, presidents of Ontario universities need to be united in their response to these cuts. SCUP urges COU to continue to press for restoration of public funding of universities to a level that supports accessibility and quality.

*The budget of the University of Guelph has been shaped by a number of principles that reflect our values. The first is accessibility . . . the second is to maintain the quality of the institution . . . the third is fiscal responsibility . . . the fourth is to make the budget process as consultative as possible.*

SCUP supports the proposal to increase undergraduate tuition by 7.5 per cent while freezing graduate tuition. It also supports wholeheartedly the recommendation that international fees at the undergraduate level fall over the next two years. International student enrolment is crucial for meeting the strategic direction of internationalism. SCUP also supports the proposal to admit five international DVM students at a fee that includes foregone BIUs, domestic tuition and the marginal costs of mounting the program.

SCUP concedes that any increase in tuition presents a further strain on students who are already experiencing high debt loads. At the same time, however, the government, through its continued disinvestment in higher education, is forcing universities to raise tuition. The alternative is to eliminate programs or reduce the quality of our programs. The University is loath to enter into further across-the-board base budget cuts until all other options are exercised, and is committed to reversing this trend by pressing for increased public funding.

SCUP believes the University's commitment in the area of needs-based financial aid will contribute to assisting those students who find the increased tuition difficult to manage. The introduction of the ACCESS awards and awards created using tuition reinvestment funds will help assist those students in financial difficulty. As of 1997/98, \$1.6 million was available annually from tuition reinvestment; a further increase of \$800,000 is expected in 1998/99. In addition, as of fall 1998, about \$385,000 will be available in student aid from the ACCESS program. Both of these funds continue to grow. Overall, there will be close to \$6 million devoted annually to student aid, which represents a 124-per-cent increase since 1992/93.

The report presented to Senate in February by the Senate Awards Committee lists the full awards program at Guelph and outlines a model for the strategic redistribution of these

nizes that the incremental tuition portion of this \$2.2 million represents some 25 per cent of the \$5.84-million gap and is consistent with the attempt over the last five years to limit the reliance on tuition increases to cope with the \$33.4-million cut in operating grants. Over that period, tuition increases, excluding the input of enrolment changes, have represented about 29 per cent of the solution. The balance of about 70 per cent of the remedy has involved painful budget cuts and revenue enhancements. Although both tuition and enrolment could have been increased by more than this amount in 1998/99, SCUP agrees with EMC that such an increase could have a significant and negative impact on the quality of our programs and our admission standards.

## DEFICIT REPAYMENT

The University responded to the 1993/94 social contract cuts by introducing the special early retirement program (SERP) in 1994. The full cost of the program (\$26.2 million, excluding interest costs) was incurred in the 1993/94 fiscal year and carried as an approved deficit. Originally, this debt was to be discharged at a rate of \$7.2 million per year. After the CSR cuts, the University received approval from Board of Governors to reduce this repayment rate to \$2.2 million per year by rescheduling the payment period to 2003/04 rather than 1998/99 as intended. As a result, the University was able to use \$5 million to meet the overall 1996/97 base budget shortfall of \$19.6 million. SCUP endorses the continued repayment of the debt at this rate.

## BRIDGING STRATEGY

In many respects, this budget reflects a university still adjusting to the devastating cuts of the 1990s. For this reason, the solution again involves some one-time solutions as an act of faith, rather than resorting to base cuts.

### a) Support from ancillaries

The operating budget already recovers costs for services provided

### a) Limited strategic rehiring

The provost and the vice-president (finance and administration) have agreed for this year, and only where appropriate, not to replace positions that come available due to resignations or retirements. The Hiring Review Committee will be asked to determine if non-strategic hirings can be postponed until such time as the budget can accommodate such positions. Some strategic hiring will be necessary next year; therefore, SCUP does not support a full hiring freeze.

The decision to postpone hirings is difficult and frustrating. It goes against the University's understanding of the need to plan for faculty renewal, it will further limit the flexibility of departments, and it will create further strains on the faculty and staff who remain. But the alternative of base budget cuts, which would see positions lost, is not acceptable. It is hoped that the University can sustain these staffing levels until both the funding improves and the flow-through impact of increased enrolment and tuition occurs.

On a more positive note, the presidents of Ontario universities, through the Council of Ontario Universities, are pressing the minister to fund \$500 million in strategic envelopes over five years, one of which is directed toward faculty renewal. If the presidents are successful, universities will be assisted in their need to hire strategically for the future, an essential condition for dealing with the looming "double cohort" of high school students entering universities in about 2002/3.

### a) Increase in the pension contribution holiday

The continuation of the \$4.1-million pension contribution holiday and its increase (subject to negotiations and the health of the pension plans) by \$600,000 will provide some much-needed short-term relief. SCUP agrees with the administration, however, that a pension contribution holiday cannot continue forever; long-term solutions will need to be



# UNIVERSITY OF GUELPH 1998/99 PRELIMINARY MET OPERATING BUDGET

MARCH 26, 1998

## A. INTRODUCTION

The following presentation details the University of Guelph's 1998/99 preliminary Ministry of Education and Training (MET) operating budget in four sections: A: Introduction, B: Initial Financial Planning Assumptions, C: Addressing the Initial Planning Deficit, D: Summary of 1998/99 MET Budget Proposed Solutions and E: Supporting Tables and Graphs.

## A.1 DEFINITIONS/BACKGROUND

The University of Guelph receives funds from a variety of sources, including government grants, tuition and other fees, research contracts, donations and endowment income. In total, it is estimated that funds from all sources in 1997/98 will be about \$313.6 million. Many of these funds are restricted as to use and cannot be used to support ongoing teaching, research and infrastructure operations; these costs are managed and funded within the "Operating Budget." The pie chart below, left, presents all major University revenues by source.

### a. The Operating Budget:

The University's total operating budget of approximately \$214 million (1997/98) is composed of two major subfunds, each with separate reporting requirements: the MET operating budget with \$151 million in revenues and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) contract with \$63 million in revenues. The following presentation, entitled the "1998/99 Preliminary MET Operating Budget," includes only the MET component. The 1998/99 OMAFRA contract budget will be presented in November after final funding levels are likely to be confirmed. Early indications are that there will be no significant changes in funding from 1997/98 levels and all contract commitments will be covered by projected revenues.

A final 1998/99 operating budget will be prepared for the November 1998 board meeting incorporating any major changes to the 1998/99 preliminary MET operating budget. Included will be fall enrolment revisions and the distribution of any budget line items unallocated at the time of the preliminary budget preparation. The OMAFRA contract budget will also be presented at that time.

### b. MET:

The Ministry of Education and Training is the provincial ministry responsible for the administration of grants for education, including those for all postsecondary institutions in the province. Historically, MET also controlled tuition fee increases for degree programs through strict formulas. In 1996, the province deregulated all fees for international students, thereby allowing each university to set these fees. In 1998,

further deregulation of fees has been announced for all graduate and as yet unspecified professional undergraduate programs. All other undergraduate fees are only partially deregulated and must conform to MET rules that allow a maximum average increase of 10 per cent (with no one program to exceed 20 per cent), with 30 per cent of the increase set aside for needs-based student aid. For compulsory non-tuition student fees (such as athletics and student health fees), MET requires that university and student groups agree on a protocol for fee increases. Such a protocol was signed with student groups at the University of Guelph in 1994. All tuition fees and compulsory non-tuition student fees are presented to the board for approval.

### c. OMAFRA:

Ontario Ministry of Agriculture, Food and Rural Affairs: Unique in the Ontario university system is \$63 million (\$54 million in ministry transfer payments and \$9 million in diploma fees and revenues from the sale of goods and services) under an ongoing research, services and education contract between OMAFRA and the University. Although these funds are restricted and are reported separately, they are considered part of the total operating budget as they fund University faculty, staff, operating and infrastructure costs. Infrastructure costs of approximately \$6.65 million and the costs of the 70 research faculty FTEs (full-time equivalents), \$6.35 million, are recovered by the MET operating budget as a charge to the OMAFRA contract. On April 1, 1997, the University and OMAFRA entered into an "enhanced partnership" whereby operations of three colleges of agricultural technology (CAT), the Horticultural Research Institute of Ontario (HRIO) and two major laboratory testing facilities were assumed by the University. A detailed presentation on the entire OMAFRA budget, including the enhanced partnership, was presented to the board as part of the 1997/98 preliminary operating budget in April 1997.

### d. Ancillary:

Ancillary operations are self-funded service operations managed by the University. Projected total

1997/98 revenues of \$46 million for the nine University ancillary operations are derived mainly from the sales of goods and services. Separate budgets are prepared and approved by the board for each operation. Because of self-funding objectives, ancillary units are charged for services including utilities, rent and administration provided by the MET portion of the operating fund. In 1997/98, the ancillary units were charged approximately \$6.894 million for such services. Some ancillary services also provide a portion of their net income (subject to availability) to fund special academic capital projects or to assist the MET operating budget in meeting its overall budget target. In fiscal 1996/97, two ancillaries (Hospitality and Parking Services) contributed \$0.54 million for this latter purpose.

### e. Cresap:

The 1991/92 Cresap program was directed at reducing the costs of non-teaching functions only and saved or reallocated \$4.6 million in base funds at a total one-time cost of \$7 million. (Cresap was the name of the consulting firm engaged to lead the review.) With board approval, \$1.2 million of the total savings was allocated each year to repayment of the deficit incurred by the Cresap program. At the end of fiscal 1997/98, it is projected that the original Cresap deficit will have been fully repaid. The \$1.2 million in base budget savings will then be allocated toward repayment of the SERP deficit (see below).

### f. SERP:

In March 1994, the Board of Governors approved the offering of a special early retirement program (SERP). The main objective of SERP was to reduce total University ongoing compensation (salary and benefit) costs without resorting to layoffs or other involuntary restructuring methods. Eligible employees had the opportunity to leave under the program by May 1, 1996, at the latest. The final actual take-up rate was 44 per cent of all eligible employees (247 employees accepted) at a one-time cost of \$26.2 million. SERP was targeted to cover the structural or base deficit created in 1993/94 because of major provincial grant reductions

that were temporarily covered with one-time social contract savings. In total, approximately \$10 million in base salary and benefit savings, net of approved rehiring, was identified over the three years 1994/95 to 1996/97. Some \$6 million of these base savings was to be temporarily allocated to repay the costs of the program over a board-approved schedule concluding in fiscal 1998/99. (When combined with the Cresap repayment of \$1.2 million, the original total repayment was to be \$7.2 million per year.) But due to the extraordinary size of the "CSR" grants cuts (see below) imposed by the province in 1996, the administration requested from the board and received approval for an extension of the repayment period to 2003/04. By doing so, \$5 million of the originally scheduled annual repayments was used to avoid further expenditure reductions, including involuntary terminations. The remaining savings of \$1 million will be combined with the Cresap repayment (\$1.2 million) and directed toward deficit repayment until 2003/04.

### g. CSR (1996/97) Reduction:

CSR (Common Sense Revolution) is the label used throughout this presentation to refer to dramatic reductions in provincial operating grants of \$15 million or 15.4 per cent, which was the largest component of an initial 1996/97 total budget shortfall of \$19.6 million. Part of the solution in meeting this challenge included reductions in University departmental budgets (\$8.9 million) experienced in fiscal 1996/97. The grant reduction was the University's share of grant reductions of more than \$285 million or 16.2 per cent of the Ontario university system's allocation. MET also permitted up to an overall 20-per-cent tuition fee increase and the deregulation of international tuition fees. To enable voluntary resignations to assist in meeting the CSR budget reduction target, the University incurred approximately \$2.5 million in termination costs, charged in 1995/96 and 1996/97. These costs were primarily lump-sum payments to employees. In addition to the rescheduled SERP deficit repayment plan noted above, the board approved a temporary

deficit, not to exceed \$1.89 million (of the \$2.5 million in total costs), which was to be repaid in equal portions, of \$0.945 million over a 24-month period starting in fiscal 1997/98. The impact of these decisions on the University of Guelph was presented in detail in the 1996/97 operating budget. The present status of the total deficit, including projected repayments, is shown in the graph below.

## A.2 THE ACCUMULATED OPERATING DEFICIT

The University carried a total of \$16.835 million of accumulated operating deficit into the 1997/98 fiscal year. The operating deficit is composed of the one-time costs of the three major restructuring programs initiated by the University: the 1996/97 CSR, the 1994/95 SERP and the 1991/92 Cresap restructuring plans. The board-approved repayment plan requires that these deficits be completely repaid by the end of fiscal 2003/04. The bar chart below, right, presents the summary of the approved repayment schedule. The 1998/99 preliminary operating budget assumptions include the repayments necessary to meet the 1998/99 schedule. At the end of the 1998/99 fiscal year, the deficit will stand at \$10.545 million or about eight per cent of MET institutional revenues.

## A.3 1997/98 FISCAL YEAR FORECAST - MET OPERATING BUDGET:

Table 1 on page 4 is a summary of the major forecast variances to the 1997/98 budget. Given the timing of the budget process, this forecast is very preliminary and is prepared mainly to confirm that overall University 1997/98 budget objectives are being met. Detailed results will not be finalized until June 1998 when final 1997/98 transactions are completed and verified. Further details of the 1997/98 forecast are presented for information in Table B, in context with the 1998/99 preliminary budget. (Table B is available on the Web.)

A.3.1 Institutional Revenues: In total, it is currently expected that there will be no major variances to institutional revenues (grants, tuition income, interest or contract service

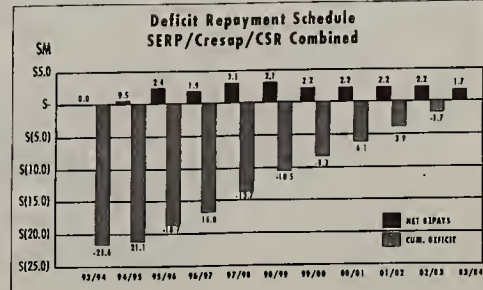
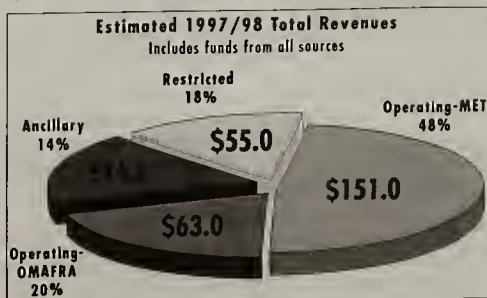




Table 1

In Thousands	Budget	Forecast	Variance +/-
<b>MET Summary Forecast Results:</b>			
Institutional Revenues	136,061	136,214	153
Institutional and Departmental Expenses (net of departmental revenues)	137,162	133,373	3,789
Net Annual Increase (Decrease)	(1,101)	2,841	3,942
ADD: Carry-Forward Funds from 1996/97 (actual)	4,246	4,246	
LESS: Carried-Forward Funds to 1998/99 (forecast)	—	(3,942)	
EQUALS: Increase Fund Balance (towards deficit repayment)	3,145	3,145	
PLUS: Opening SERP/Cresap Deficit	(16,835)	(16,835)	
EQUALS: Closing SERP/Cresap Deficit*	(13,690)	(13,690)	
*Consists of: Cresap:			
SERP:	(12,745)	(12,745)	
CSR:	(945)	(945)	
	(13,690)	(13,690)	

Table 2

	\$Million
B.1 Current opening base deficit: result of ongoing salary obligations. Covered in prior years with employer pension contribution holidays (PCH).	(4,100)
B.2 One-time PCH savings: assume the 1997/98 level, subject to condition of the plans and negotiations.	4,100
B.3.2 Possible pay equity grant reduction: dependent on a revised government allocation process not yet concluded. Current grant level at about \$1.2 million.	(0,400)
B.5 1998/99 projected increased costs for compensation.	(3,290)
B.6.1 Utilities at five-per-cent increase: mainly ramping heating and miscellaneous utility services. Hydro assumed to be at 1997/98 rates.	(0,500)
B.6.2 Library acquisitions at two-per-cent increase.	(0,070)
B.6.3 Increase in graduate student aid — elimination of subsequent fees (year two of a three-year commitment).	(0,235)
B.6.4 Deferred maintenance expenses — for safety and critical infrastructure items. Increases current operating budget allotment to \$400,000.	(0,100)
B.6.5 Increase contingency of \$300,000 to \$600,000.	(0,300)
B.7 One-time CSR deficit repayment commitment. Final year required as CSR debt will be totally repaid.	(0,945)
<b>Results — Initial Planning Assumptions</b>	<b>(5,840)</b>

fees). The \$0.153 million projected positive variance is mainly due to enrolment higher than 1997/98 budget assumptions. Final grants will not be confirmed until after the year-end close at April 30, 1998.

**A.3.2 Institutional and Departmental Expenses** Overall, it is forecast that there will be no major negative departmental variances to budget. The University operates with an internal policy under which departments/divisions/colleges may carry forward unspent budgetary funds into the next fiscal year for specific commitments or approved projects. Eligible carry-forward funds are typically used for items such as outstanding purchase orders or similar expense commitments, planned minor renovations and capital equipment purchases, or research "start-up" funds for new faculty. Under this same policy, units are also accountable for expenditures over approved budgets (deficits). Deficits are a first charge against the next year's budget allotment. The carry-forward policy limit for funds is two per cent of net budget in any one year up to a maximum of five per cent of total net unit budget.

The objective of the carry-forward policy is to encourage longer-term resource planning and more responsible fiscal management by local units. In light of MET funding reductions, there are many urgent uses to which the current projected carry forwards will be applied within the local budget units, including possible budget adjustments in the following year. It should also be noted that units have not received any funding from central administration to cover inflationary cost increases for operating expenses for many years and that funding for renovations, equipment replacement and start-up funds for new faculty has increasingly become the responsibility of local units.

Overall, it is expected that there will be \$3.942 million or about three per cent of net budget in 1997/98 net funds carried forward into fiscal

1998/99. (This compares with a 1996/97 to 1997/98 carry forward of \$4.246 million, historical levels of between one per cent and three per cent of net budget and a maximum allowable level of five per cent.) Approximately \$1.8 million of the carry forward will be in the teaching units. Of the remaining funds, approximately \$0.800 million will be in the library acquisitions account and specific academic-support projects committed but not spent.

**A.3.3 Summary 1997/98 MET Deficit Position** In summary, it is forecast that the University will, after having allowed for funds for approved departmental carry forwards of \$3.942 million, make the required deficit repayment of \$3.145 million. The \$3.145 million consists of a \$2.2-million repayment of the Cresap/SERP deficit plus \$0.945 million in a CSR deficit repayment as approved by the board in 1996/97. It is forecast that the University will meet its overall 1997/98 MET budget objectives.

#### B. 1998/99 INITIAL FINANCIAL PLANNING ASSUMPTIONS

Each year, at the start of the annual budget process (after the provincial funding announcement), the University develops a set of general financial planning assumptions to establish an initial net funding position, normally a shortfall. (In the 1998/99 budget presentations this initial shortfall of \$5.84 million was referred to as the "GAP") From this preliminary initial analysis, more detailed budget estimates have been prepared to determine both revenue budgets from enrolment targets, tuition and other income as well as incremental expenditure adjustments, including the impact of any reduction programs. The following is a summary of the assumptions that determined the initial "GAP".

##### B.1 Opening Base Surplus/Deficit:

The first step in preparing the initial net funding position is to determine the opening base surplus/deficit. The opening base

surplus/deficit for any given budget year is calculated by removing net one-time changes from the prior year's ending budget. (One-time budget changes are assumed to occur only in the fiscal year in which they are recorded. In the past, recent examples include pension contribution savings from the operating budget, one-time reductions in department budgets, special grants received once, and carry-forward surplus/deficits from prior years. It should be noted that in the current budget, the SERP deficit repayment obligation of \$2.2 million is considered a base or ongoing commitment until the year 2003/04.) The opening base surplus/deficit is used as the starting point in the planning process only and is not necessarily a forecast actual or cash position.

The opening 1998/99 base surplus/deficit is a \$4.1-million deficit. This position is due mainly to the implementation of negotiated salary obligations in the past two fiscal years (1996/97 and 1997/98). This "deficit position" was covered in 1997/98 using a negotiated employer pension contribution holiday (PCH), projected to equal the \$4.1 million. It is projected that savings from the 1997/98 PCH will totally offset the costs of negotiated salary increases incurred in that year. The salary commitments are considered ongoing or base costs; the PCH is an annual one-time cost saving as it is subject to both the financial condition of the pension plans and the outcome of specific negotiations.

##### B.2 Pension Contribution Savings:

In the calculation of the initial net 1998/99 funding position (the "GAP"), it was assumed that the University would be able to take a PCH at least equal to that taken in fiscal 1997/98 or \$4.1 million. The ability to realize this saving is mainly subject to the financial condition of the affected plans in 1998/99. While we are confident of this occurring, confirmation will not be available until after the results of the actuarial evaluation are reviewed (expected in mid-April).

##### B.3 Provincial Operating Grants:

**B.3.1 MET Grant:** On Dec. 15, 1997, the minister of finance issued a general economic statement. In this statement, it was announced that provincial operating funding, excluding grants for pay equity costs, to all postsecondary institutions (PSE) would be \$2.79 billion, effectively the same levels as in 1997/98. For the first time, however, this announcement "bundled" the funding for colleges and universities together with the total costs of provincially supported student aid (OSAP — Ontario Student Assistance Program). Given the possible variability of the costs of provincial student aid costs, it is not clear at this time what the detailed final allocation of grants will be. For the purposes of this preliminary budget, it will be assumed that Guelph will receive the same operating grant (excluding the pay equity grant) as in 1997/98 — \$86.5 million. Although this is considered a "best case" assumption, it will, at this time, be incorporated into the budget until further information becomes available. University presidents are pressing MET to offer assurances of stable funding of the grant.

**B.3.2 Pay Equity Grant:** Also contained in the economic statement was

reference to increased costs to the province as a result of a legal decision to extend pay equity funding to additional agencies. As the pay equity funding allocation by the province is fixed at \$500 million, it is assumed that all institutions, including universities receiving pay equity grants prior to the ruling, will receive less funding. Discussions among Ministry of Finance officials, employers and employee groups are under way to review the entire allocation of the provincial allotment to support pay equity costs. Although it is not expected that the final allocations will be confirmed for some time, an estimated reduction of \$400,000 of the University of Guelph's pay equity grant for 1998/99 has been made based on very general assumptions. There is currently about \$1.2 million in the base budget allocated for this grant.

##### B.4 OMAFRA Contract:

At this time, it is assumed that 1998/99 OMAFRA funding will be stable, therefore the current level of cost recoveries into the MET operating budget for infrastructure and research faculty costs (about \$13 million) will remain the same.

##### B.5 Compensation:

Under salaries, estimates have been included to cover the second-year costs of two-year agreements signed with two (out of a total of 11) employee groups — the University of Guelph Faculty Association and University of Guelph Staff Association. These agreements, which include about 70 per cent of the total costs of regular full-time positions, were signed in 1997 and covered fiscal 1998/99 as well as 1997/98. As part of these two negotiations, it was agreed that the University could access proportional savings from an employer pension contribution holiday in the years covered under the agreements.

A further initial planning assumption was made to provide for increases on all remaining components of the salary budget. (No assumptions were made in the initial planning assumptions as to how to fund the costs of this general provision for salary increases in 1998/99. Sources of these funds are subject to negotiation.)

Small adjustments in benefit costs were made to cover projected changes to employer benefit costs, particularly for statutory benefits such as CPP and EI (Employment Insurance).

It is projected that the total cost of these compensation assumptions will equal approximately \$3.29 million.

##### B.6 Operating Expenses:

No provisions were made in the initial planning assumptions for general cost increases. Specific estimates, however, have been made for increases to the following items:

**B.6.1** An increase of five per cent or \$0.5 million in the University's central utilities account. Cost increases are expected primarily for campus heating due to rate increases for campus heating and increased miscellaneous services. (The total budget for centrally provided utilities on campus is about \$10 million, of which about 27 per cent is for heating (oil & natural gas), 58 per cent is for hydro and 15 per cent is for miscellaneous services such as water, sewage and garbage disposal.)

**B.6.2** An increase of two per cent or \$0.07 million for library acquisitions. This allowance will not cover the direct inflationary increases occurring for periodical purchases in particular. Reviews are under way to address potential shortfalls in funding by implementing innovative technologies, sharing with other local universities and a rigorous review of current purchases. The Alma Mater Fund has also agreed to sponsor a solicitation for the library as part of its annual fund-raising effort.

**B.6.3** In fiscal 1996/97, the University eliminated the "subsequent" fee discount (\$380 per semester) previously available to graduate students in the later stages of their programs. As part of a minimum commitment to students and consistent with other research-intensive universities, the University will allocate approximately 70 per cent of the resultant increased revenue (estimated at \$700,000) toward graduate student aid. This allocation is to be implemented over a three-year period that started in fiscal 1997/98. In the 1997/98 budget, a base addition of \$0.25 million was made for graduate awards. The second instalment of this commitment is \$0.235 million.

**B.6.4** Increase of \$100,000 in the provision for the critical deferred maintenance items. The operating budget currently provides about \$340,000 in central funds as a contribution for critical physical plant maintenance costs. It is proposed to increase this allotment to \$440,000 in recognition of a major backlog of critical deferred maintenance items (estimated at \$40 million to \$50 million). This will supplement the annual facilities renewal grant (recorded in the Capital Fund) of \$1.035 million. This grant was cut by 25 per cent in 1996/97 and has been frozen ever since.

**B.6.5** Increase of \$300,000 in the University's contingency account. The University currently carries a contingency account of \$300,000 into each fiscal year to deal with emergency repairs, one-time institutional costs and unexpected shortfalls in funding during the year. Due to the uncertainties of the current funding announcements, an additional \$300,000 will be added to this account, taking it to \$600,000. As grant levels are clarified, the allocation of these funds will be finalized.

##### B.7 CSR Deficit Repayment:

The University is committed to meeting the deficit repayments consistent with the rescheduled plan as approved by the board in the 1996/97 budget. Total repayment commitments in 1998/99 are \$3.145 million, consisting of \$0.945 million for the CSR deficit and \$2.2 million for the SERP deficit. A \$0.945-million CSR payment in 1998/99 will completely retire the CSR debt. The remaining SERP deficit will be repaid by the end of the fiscal year 2003/04 from base savings committed in the budget.

Table 2 summarizes the calculation of the initial 1998/99 planning assumptions (the "GAP"). The remaining budget document is devoted to the incremental changes to the budget proposed to address or close the initial "GAP" of \$5.84 million. (Numbers in brackets indicate an increase in costs or deficit; no brackets indicates an increase in revenues or cost savings.)



**C. 1998/99 MET PRELIMINARY BUDGET - ADDRESSING THE INITIAL PLANNING GAP**

The following specific items are detailed 1998/99 budget proposals and their estimated *incremental* budgetary impact on the base budget. They are presented in two groupings — the items

that are derived mainly from revenues or cost recoveries and items that change expenses. Detailed departmental allocations with accompanying notes, used to *build* the 1998/99 unit bud-

gets, are shown for information in Table A. (The 1998/99 preliminary MET operating budget in comparison with 1996/97 actual and 1997/98 forecast results is presented in Table B.)

[illegible]

#### D. SUMMARY OF 1998/99 MET BUDGET PROPOSED SOLUTIONS

The total of revenue and expenditure assumptions identified to address the initial shortfall of \$5.84 million are as follows:

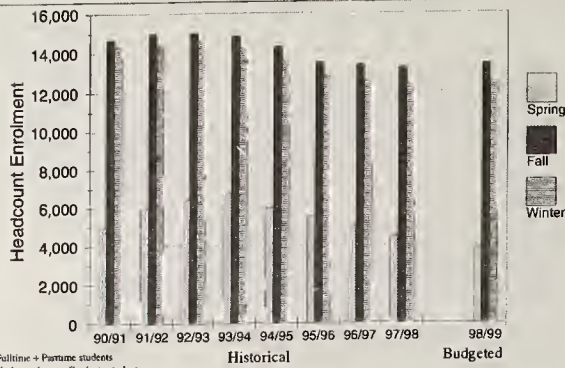
<b>C.1</b>	<b>Tuition Revenue Enrolment and Tuition:</b> Total Tuition Income LESS: Increased costs for mandated student aid in 1998/99 Total net tuition	<b>3.000</b> <b>(0.800)</b> <b>2.200</b>
	<b>NET EXPENSE INCREASES:</b>	
<b>C.2</b>	<b>Increase costs for International student aid</b>	<b>(0.075)</b>
<b>C.3</b>	<b>Increase costs for International student recruitment</b>	<b>(0.125)</b>

	<b>NET EXPENSE DECREASES:</b>	
C.4	Base reductions: both vacant positions and operating	0.699
C.5	Increased PCH cost saving, based on financial conditions of the pension plans and negotiations. Total 1998/99 target: \$4.7 million	0.600
C.6	Resignation and retirement savings	0.541
C.7	Budget support from ancillaries	0.300
C.8	Unallocated one-time savings or revenues	1.700
	<b>PROPOSED SOLUTIONS:</b>	<b>5.840</b>



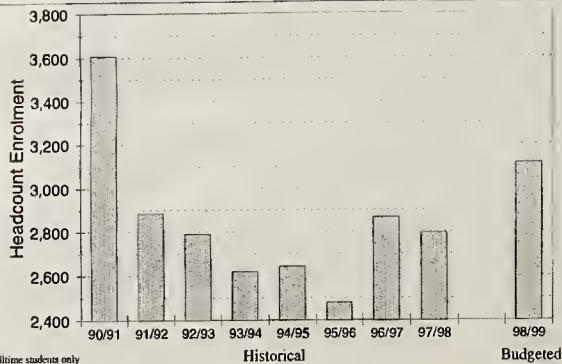
University of Guelph  
Total Headcount Enrolment by Semester

Graph A



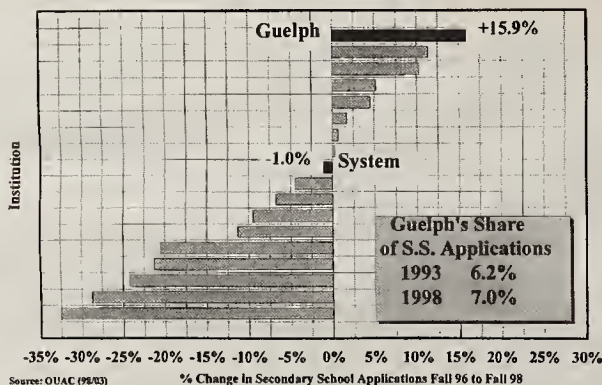
University of Guelph  
Undergraduate Semester One Headcount Enrolment

Graph B



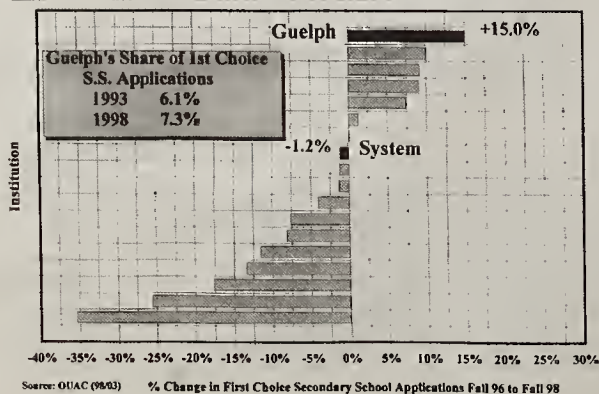
University of Guelph  
Secondary School Applications

Graph C



University of Guelph  
First Choice Secondary School Applications

Graph D



University of Guelph 1998/99  
Preliminary Operating Budget — Net Expenses  
(In \$Thousands)

MET Budget  
Revision Details  
Table A

	A	B	C	D	E	F	G
	'98/99 Opening Base	Labor Agreements	Inflation & Other Allocations	Resignation & Other Savings Adj C4, C6	Special Items Budget Ref. Increase #	Budget Ref. Decrease #	Preliminary '98/99 Budget
<b>INSTITUTIONAL REVENUE</b>							
Base Formula Grants	86,846					(400) 8.3.2	86,446
Flow-through Grants	890						890
Provincial Operating Grants	87,736					(400)	87,336
Tuition Revenue	43,609				3,000 C.1		46,609
Contract Service Fees	1,071						1,071
Student Support Services Fee	747						747
Interest Revenue	1,755						1,755
Sundry Revenue	1,143						1,143
<b>Total Institutional Revenue</b>	<b>136,061</b>				<b>3,000</b>	<b>(400)</b>	<b>138,661</b>
<b>INSTITUTIONAL EXPENSES</b>							
<b>TEACHING UNITS</b>							
Arts	10,272	305		(214)			10,363
CBS	11,940	311		(104)			12,147
Social & Applied Human Sciences	17,489	503		(207)			17,785
OAC	11,369	571		(198)			11,742
OVC	11,850	382		(83)			12,149
CPES	14,307	373		(63)			14,617
Other Teaching Units	1,504	31					1,535
Student Aid	3,217				1,110 C1C2B.6.3		4,327
Academic Support Funds	2,120			(157)			1,963
Teaching Units	84,068	2,476		(1,026)	1,110		86,628
<b>ACADEMIC SERVICES</b>							
Library Operations	6,106	151		(36)			6,221
Library Acquisitions	3,410		70				3,480
Graduate Studies	255	5					260
Office of Research	2,784	57					2,841
Teaching Support Services	804	15					819
Registrar	3,179	55					3,234
Other Academic Services	926	5			125 C.3		1,056
Academic Services	17,464	288	70	(36)	125		17,911
Computing & Communications Services	4,882	74		(178)			4,778
Student Services Operations	2,103	37					2,140
Athletics	734	19					753
Student Life Enhancement & Student Groups	75						75
Student Services	2,912	56					2,968
Development & Public Affairs	2,447	31					2,478
Physical Resources — Operations	16,817	208					17,025
Utilities	9,838	500					10,338
Renovations: Support from Operating	340				100 B.6.4		440
Physical Resources	26,995	208	500		100		27,803
Human Resources	2,387	32					2,419
Executive Offices	2,158	52					2,210
Finance/Purchasing/Mail Services	2,987	49					3,036
Security Services	1,581	20					1,601
Administration	9,113	153					9,266
General Expenses	3,324	4					3,328
University Contingency	300				300 B.6.5		600
OMAFRA Service Fees	(6,650)						(6,650)
Ancillary Recoveries	(6,894)				(300) C.7		(7,194)
<b>Net Expenses</b>	<b>137,961</b>	<b>3,290</b>	<b>\$70</b>	<b>(1,240)</b>	<b>1,335</b>		<b>141,916</b>
Pension Contribution Savings (PCH)							(4,700) B.2C.5 (4,700)
Unallocated One-time Savings/Revenues							(1,700) C.8 (1,700)
Repayments	2,200				945 B.7		3,145
<b>Total Institutional Expenses</b>	<b>140,161</b>	<b>3,290</b>	<b>\$70</b>	<b>(1,240)</b>	<b>2,280</b>	<b>(6,400)</b>	<b>138,661</b>
<b>Annual Operating Income (Expense)</b>	<b>(4,100)</b>	<b>(3,290)</b>	<b>(\$70)</b>	<b>1,240</b>	<b>720</b>	<b>6,000</b>	<b>0</b>

#### NOTES ON CONTENTS OF COLUMNS:

Column A: The 1998/99 opening base is the ongoing allocation by unit (net of departmental revenues). The opening base deficit is \$4.1 million.

Column B: Labor agreements: includes an estimated \$3.29 million for existing agreements with UGFA and UGSA covering 1998/99 and allowances for negotiated agreements with other employee groups.

Column C: Inflation and other allocations: i) a \$0.07-million (two-per-cent) increase for library acquisitions and ii) a five-per-cent or \$0.5-million increase in utilities.

Column D: Resignation and other savings: includes the salary and benefit savings from regular retirements and resignations as well as the completion of position removals identified as part of earlier plans (five-year plan, SERP, CSR).

Column E, P: Budget increases and decreases.

Column G: The preliminary 1998/99 budget is the sum of columns A to F.



# A Proposal to the Government of Ontario for Strategic Reinvestment in Its Universities

*Editor's note: The Council of Ontario Universities recently presented the provincial government with an urgent request for close to \$500 million in strategic reinvestment of public funding in universities over the next few years. Copies of this proposal have been sent to MPPs, media and student governments. The proposal is reprinted here.*

**T**HE ACCOMPANYING MAP document illustrates the change in state and provincial support for higher education over the past two years. Ontario, regrettably, has the distinction of being the jurisdiction with the highest level of divestment from higher education with a 15-per-cent reduction in support.

In recognition of Ontario universities' centrality to the economic, social and cultural vitality of the province, the Council of Ontario Universities calls on the Government of Ontario to make a major strategic reinvestment in Ontario's universities by raising the level of public funding to the national average.

The priorities recommended for strategic reinvestments are:

- faculty excellence
- student assistance
- research renewal
- facilities/infrastructure renewal
- digital library innovation.

The multi-year financial reinvestment required to reach the national average, as calculated in 1995/96, is \$490 million. This gap continues to grow as our population grows and as other Canadian provinces reinvest in their universities, such that in 1997/98, it is \$608 million.

On Nov. 19, 1997, at "Ensuring Excellence: A Summit on the Future of Ontario Universities," Premier Bill Harris said in his address:

*"We want Ontario to be the best jurisdiction in North America to live and work and invest in and to raise a family. A skilled and highly educated workforce is absolutely essential and central to our ability to be able to reach that goal."*

In the 1997 Ontario Economic Outlook and Fiscal Review, the minister of finance identified two key economic challenges related to higher education in the province: equipping young people for the future and building an innovative economy through highly skilled people and world-class research institutions.

This proposal calls on the provincial government to make investment in Ontario universities a strategic priority in its 1998 spring budget to ensure that Ontario universities are able to contribute appropriately to the premier's vision and respond to the challenges that the minister identified. Targeted resources of \$608 million over five years, which would thereafter be included in the base funding allocation, will raise Ontario universities' funding levels to the national average. It will also respond to the key recommendation of the Government of Ontario's Advisory Panel on Future Directions for Postsecondary Education.

Ontario can be home to one of the best postsecondary education sectors

in the world if we strive to meet two goals.

## GOAL #1: WE NEED TO ENSURE THAT THE PEOPLE OF ONTARIO ARE THE BEST EDUCATED AND SKILLED IN THE WORLD.

Strategic reinvestment will:

- Ensure that no qualified student is denied the opportunity of pursuing an education.
- This objective is of critical importance given the projected double cohort of secondary school students who will seek entrance to colleges and universities beginning in the year 2002.

- Facilitate the delivery of the highest-quality education across a wide range of disciplines. This objective will ensure the preservation of the distinctive strengths and missions of Ontario universities and restore student/faculty ratios to acceptable levels. The imbalance that exists between the growth in student enrolment and the decline in full-time faculty has jeopardized the quality of teaching, learning and research.

- Enable our universities to attract and retain the best minds to teach and research.

The graph opposite illustrates the loss of high-calibre faculty and first-choice candidates in Ontario universities over the last three years.

- Position Ontario to lead the country in the generation of new ideas and the application of new technologies.

Ontario has lost ground steadily to other provinces in both sponsored research income and share of federal granting council funds. The recently announced increase to federal granting council budgets beginning in 1998/99 creates even greater urgency for Ontario to take immediate action to arrest this decline and restore research competitiveness.

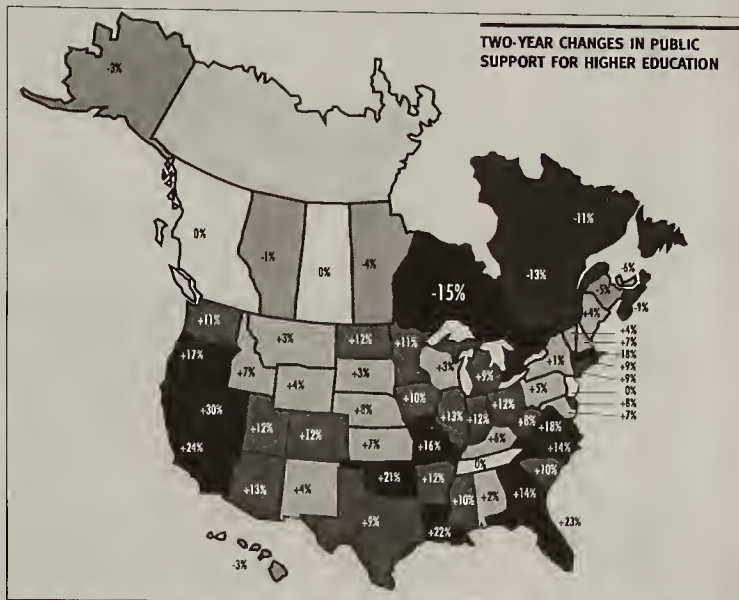
## Higher education — the foundation for economic prosperity

Higher education will continue to be the foundation for Ontario's economy and prosperity in the millennium. A new investment in faculty teaching, student assistance and research support is essential to ensure access to, and delivery of, the highest-quality education across a wide range of disciplines and geographical areas in Ontario.

### Strategic reinvestment #1: A faculty excellence opportunity program

Current fiscal restraints have had a serious impact on faculty across all Ontario universities.

A faculty excellence opportunity program will allow universities to attract and retain the world's best and brightest to teach and research in all of our universities. Moreover, it will aid in the preparation of our youth to become responsible citizens, who will also be ideally qualified for employment opportunities in the competitive global economy. Statistics readily illustrate that education is key to employment, and faculty are the cornerstone of a high-quality teaching and learning environment. This pro-



gram will renew the strength of the faculty complement as guided by the individual university's mission. It will also help ensure that the faculty complement is positioned to fulfil the university's corporate plan, which is anticipated to be a requirement of the soon-to-be-introduced Public Sector Accountability Act.

A strategic reinvestment will enable Ontario's universities to:

- prepare for the secondary school double cohort;
- respond to areas of high demand in growth sectors;
- improve the classroom experience;
- reduce climbing student/faculty ratios;
- respond to strategic regional mandates; and
- generate high-level scholarship and creative activity.

There is particular urgency to this reinvestment given that the current fiscal restraints, if perpetuated, will seriously curtail the capability of Ontario universities to compete effectively for the highest quality of faculty in a very dynamic environment.

### Strategic reinvestment #2: Protect student access

It is vital that student access be protected to meet both the aspirations of the student and the requirement for highly skilled graduates that a

knowledge-based economy demands. A strengthened and flexible student assistance program will help ensure that each and every qualified student is given the opportunity to reach his or her full potential.

As the province draws its conclusions around the federal government's plans to reform student aid and add new elements of student assistance, Ontario universities stress the need to place high priority on the integration and harmonization of programs and the renewal of provincial programs to ensure that special-needs students receive appropriate support, to introduce measures to limit debt accumulation and, as income-based terms of loan repayment are introduced, to ensure that appropriate strategic intervention points occur during debt repayment should earnings not meet expectations.

### Strategic reinvestment #3: Renew the commitment to research excellence

Ontario can and must become a world leader in research and development. It is widely acknowledged that the generation of ideas and innovation join to create the competitive advantage in modern economies. Faculty must be provided with the research tools and support necessary to enable them to generate and capture new ideas and invent and adapt

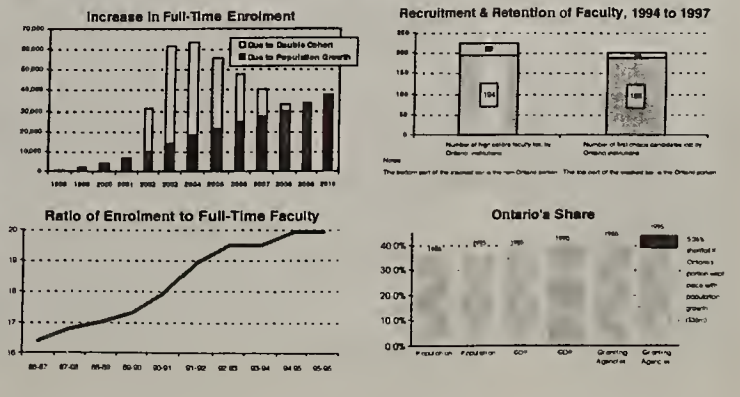
new technologies that will set the pace for global innovation and discovery.

We have lost considerable ground over the last decade. Ontario universities call for a multi-year strategic reinvestment in research to restore Ontario's competitive position and to ensure national and international excellence in this province.

A strategic reinvestment in research excellence will allow Ontario universities to:

- provide better learning experiences for graduate students, who are our province's future generation of researchers in industry, the arts, government, the academy, the not-for-profit sector, etc.;
- revitalize research facilities to provide state-of-the-art experiences for students studying in Ontario and curtail the flight of first-rate researchers to other jurisdictions;
- restore appropriate overhead and indirect support for doing research;
- enter into more productive partnerships with business, industry and the community;
- build clusters/networks of researchers to provide more competitive teams of academics within the province;
- provide greater access to leading research materials; and

*Continued on page 8*





# Council of Ontario Universities Advocacy Highlights

1997

April 16 COU appears before the Senate Subcommittee on Postsecondary Education and appeals for greater federal funding of student assistance and university-based research.

May/June University presidents meet with more than 50 Ontario MPPs to press the case for increased base funding for universities, more funds for university-based research and improved student assistance.

Sept. 23 Delegation of university presidents meets with Premier Mike Harris to urge his government to increase base funding for Ontario universities, to provide more funds for university-based research and to improve student assistance.

Oct. 24 Finance Minister Paul Martin meets with COU; he is urged by the council to improve student

assistance and provide greater federal support for university-based research.

Nov. 19 COU co-sponsors "Ensuring Excellence: A Summit on the Future of Ontario Universities" with the Bank of Nova Scotia; participants representing business, government, universities and students discuss the state of Ontario universities and possible public policy solutions, including more base funding for Ontario universities, increased support for university-based research and improved student assistance.

Dec. 11 COU has its first meeting with Minister of Education and Training David Johnson; representatives at the meeting stress the importance of increased base funding support for Ontario universities, more funding for university-based research and improvement to student aid.

Dec. 15 COU and individual presidents react unfavorably to the Ontario government's announcement of funding for 1998/99 and 1999/2000.

Dec. 22 A delegation meets with Johnson to discuss implications of the Dec. 15 announcement on funding.

1998

January A series of meetings is held with opposition critics to outline COU's positions on funding, student assistance and research.

Feb. 12 COU holds a press conference to outline its brief to the Standing Committee on Finance and Economic Affairs to be presented that day. The standing committee is conducting pre-budget consultations at which COU presents a three-point plan to help universities through improved funding, improved student assistance and improved research support.

Feb. 24 COU reacts favorably to the 1998 federal budget, which contains strong provisions to improve student assistance through scholar-

ships and improved tax relief for students, along with improved funding to federal granting councils.

End of March Release of advocacy document that calls on the Ontario government to commit in the 1998 Ontario budget to make the following strategic reinvestments in Ontario universities:

- faculty excellence
- student assistance
- research renewal
- facilities/infrastructure renewal
- digital library innovation.

## COU Proposal

Continued from page 7

- offer improved start-up research grants and facilities to attract and keep talent.

### GOAL #2: WE NEED TO ENSURE THAT OUR PHYSICAL AND TECHNOLOGICALLY BASED INFRASTRUCTURE POSITIONS ONTARIO UNIVERSITIES TO BE COMPETITIVE.

A strategic reinvestment in the infrastructure of Ontario universities is needed to:

- maximize Ontario's share of federal funds available in competitive processes for infrastructure improvements, including competing for Canada Foundation for Innovation Funds;
- address the growing gap in facilities renewal requirements and ensure that acceptable standards are maintained; and
- access modern technology to connect and interact efficiently with the world's information resources.

#### Strategic reinvestment #4: Renewal of physical infrastructure

A recent study undertaken by the Council of Senior Administrative Officers of Ontario universities, in response to a request from the provincial government clearly illustrates that a rapidly escalating infrastructure renewal problem threatens the ability of Ontario universities to deliver the academic missions of the institutions.

The rapidly escalating infrastructure renewal problem is a consequence of inadequate resources being available to service and maintain greatly expanded physical space and to adapt new information technologies. Physical space at Ontario universities grew dramatically in the 1960s in response to public policy and societal demand to increase access to postsecondary education. Consequently, Ontario universities must now face the financial challenge of redeveloping more than 20 million square feet of building space at state-of-the-art standards instead of the three million square feet that the monies from the Government of Ontario's Facilities Renewal Program was originally intended to address.

For two decades, infrastructure

renewal has been a relatively low priority in provincial fiscal policy. As a result, there exists a predictable growth in annual and cumulative deficits in infrastructure funding that cannot be addressed by diverting an ever-increasing proportion of institutional operating funds to capital renewal needs. To address this reality, we propose a system-wide infrastructure deficit management strategy that calls for a \$165-million annual investment over the next 10 years. A separate and detailed report that outlines this strategy is available on request.

#### Strategic reinvestment #5: Investment in digital library innovation

We need to ensure that our professors and students are able to bring the world to their desks through digital communications.

A one-time Ontario investment of \$36 million, which, with matching investments, will ultimately be a \$75-million Digital Library Transformation Project, will bring more knowledge and library materials to the desktop of the student, the professor and the researcher, no matter where they study or work in the province. Broadly accessible throughout Ontario, this investment will transform the way our students access the world of ideas. Moreover, the Digital Library Transformation Project will be an asset to the public-at-large to promote and assist the growing societal trend toward lifelong learning.

The Digital Library Transformation Project will provide flexible and efficient mechanisms for locating, organizing and personalizing vast amounts of multimedia information. Where once our highways were the main thoroughfares for books for the few, the information highway will be our transporter of digitized and electronic information for the many.

With the necessary tools, communities in Ontario can have the confidence that higher education will continue to flourish in this province regardless of which university a student attends or where it is located. A detailed proposal is available on request on this project, which has the unanimous support of the presidents of Ontario universities.

## Measures of Excellence

Editor's note: This article by Ann Dowsett Johnston is reprinted with permission from the March 30, 1998, issue of *Maclean's* magazine.

IT WAS LATE IN THE EVENING, and Mike Harris was heading purposefully through a crowded party, anxious to put an end to a long fractious day. And who could blame him? Nine hours earlier, as the premier arrived to deliver the lunch-hour address at "Ensuring Excellence," a high-profile summit on the future of Ontario universities, police were dragging student protesters down the escalators of Toronto's Metro Convention Centre.

Whisked through a back door, Harris had avoided a second barrage of students and, despite some noisy competition, delivered a confident speech to a blue-chip crowd of university presidents, bank executives and corporate power brokers. The reception was polite, but Harris could not avoid the jackhammering evidence. Why, in the past two years, had Ontario held the record for the highest percentage cuts to postsecondary education in any jurisdiction in North America? Why was Ontario's per-capita funding for higher education ranked lowest in the country? Why had British Columbia, Alberta and Quebec improved their share of federal research dollars, while Ontario had slipped from its place of glory?

University of Toronto president Robert Prichard—nicknamed "the velvet steamroller"—was blunt. After welcoming Harris's "emphasis on excellence," he announced: "We face threats—to our capacity to serve the province and to serve our students—which are unprecedented in the past 20 years."

Hours later, Harris was trying to exit a gala dinner at Prichard's home, an event to celebrate a \$6.4-million gift from Barrick Gold chair Peter Munk to the university. The evening's many speeches were punctuated only by the tinkle of glasses and the muffled chanting of yet another shift of protestors, standing outside in the late November snow.

Harris was on his way out when he stopped, just short of the front door, to reiterate a point. "You know," the premier told me with an earnest smile, "there really isn't any connection between operating budget and excellence. Measuring the operating budget doesn't tell you

anything." And with a confident nod, he left.

Well, Mr. Premier, others beg to differ. Since 1993, core funding to Canadian postsecondary institutions has plummeted by 34 per cent. No university, in Ontario or anywhere else, can shrink to greatness. Cut the operating budget, and something's got to give. Take a look at the most significant changes between the 1995 *Maclean's* rankings of universities and those published last November. Across Canada, the number of full-time faculty dropped by six per cent, and so did the number of first- and second-year classes. It should come as no surprise that 56 per cent of the schools reported that access to tenured faculty was down for first-year students. And all the while, students were shouldering an average rise of 42 per cent in tuition costs.

"The learning experience that involves student/faculty interaction, that encourages critical thinking, is now in jeopardy," says Ken Snowden, director of resources planning at Queen's University in Kingston, Ont. "We need more bodies—that's what the extra dollars buy."

Buying bodies—meaning bright new faculty—while maintaining student access is what much of this battle for funds is about. Two weeks ago, British Columbia announced a \$26-million increase to postsecondary funding, making it the only province to boost funding and freeze tuition. One of its provisos: the universities must add 900 new student spaces. "This is a very positive precedent," says UBC president Martha Piper. "For two years running, we've taken more students with the same resources."

Now, critical eyes are on Ontario, home to 40 per cent of all scholarly and research activity in the country. Last month, John Roth, president and CEO of Nortel—Canada's fastest-growing employer—threw his considerable weight into the ring. "Why care about Ontario?" asks Roth. "Because you can't get Canada right if you don't get Ontario right."

Anticipating Harris's spring budget, he presented a white paper on the urgent need for graduates in the high-tech sector. Nortel currently recruits one out of every four Canadians graduating with a degree in computer science or electrical engineering, and plans 5,000 new hires in the next four years in the Ottawa

region alone.

"There are lots of well-paying jobs going vacant in Canada," says Roth. "Students are applying in huge numbers to take these courses, yet almost three out of every four are turned away. This is a brain drain in the making."

Waterloo president James Downey confirms that competition is tough, especially in key computer and electrical engineering departments. "We could double our numbers and still not dilute the quality of our graduates," says Downey. "But because of the funding situation, we have not been able to respond effectively to the demand."

Meanwhile, a disconcerting proportion of graduates from those programs are heading south of the border. With the information-technology sector booming, Americans are now recruiting in Canada with a vengeance. One significant reason: between 1986 and 1996, U.S. enrolment in computer science programs dropped by 39 per cent. "At Waterloo," says Downey, "more than a quarter of our grads in those fields are leaving the country."

Although there is no doubt that the whole system is hurting, leveraging the industrial technology argument may be the most successful way to Harris's heart. "And right now," said one president, "you have to work with those who fund you because there are many others willing to cha-cha with them."

Earlier this month, academic leaders gave Ontario Finance Minister Ernie Eves a geography lesson in the form of a sweatshirt. Embazoned on the front was a map of Canada, showing percentage changes to postsecondary funding in each province over the past two years. Ontario had chopped the most—15.3 per cent—followed by Quebec at 12.9 per cent. Bear in mind that in those same years, funding in the United States rose an average of 11.5 per cent.

Perhaps it's only a coincidence, but consider the following: in 1995, when *Maclean's* did its annual survey of more than 3,400 guidance counsellors, academics and CEOs across the country, asking them to choose which universities would be the leaders of tomorrow, nine of their top 15 picks were from Ontario. Last year, that number had dropped to six. Mr. Premier, are you listening?



# ON THE ROAD AGAIN

*Recruitment officers go the distance to spread the word about U of G*

BY NATHAN MALLETT

**F**OR HIGH SCHOOL students, choosing a university can be one of the biggest decisions of their lives. In the face of fierce competition for jobs and rising education costs, matching career ambitions with the right postsecondary education can be overwhelming. Fortunately for thousands of students considering U of G, they have a liaison co-ordinator like Susan Vercruysse to help them.

Vercruysse, a Guelph graduate herself, and her liaison co-workers — or “road warriors” as they call themselves — work for Admission Services. They travel the province showing thousands of high school students the benefits of a degree from the University of Guelph.

First impressions are important. That's where the recruitment officers come in. Part good-will ambassadors, part guidance counsellors, part travelling salespeople, they are often the only contact many high school students have with U of G.

It's a busy job, Vercruysse admits, but the responsibilities are shared equally throughout her department.

“We don't have a ‘down time’ here,” she says. “But luckily, it's a real team environment. I am just one cog in the wheel.”

And like a wheel, the University's recruitment efforts are always turning. The year-long process works in a series of phases, beginning each fall with liaison staff “taking the show on the road.”

During this phase, U of G's recruiters zigzag the province making scores of presentations to thousands of young people interested in studying at Guelph. In a matter of weeks, they hit more than 600 secondary schools in every community of the province. And by the time they're finished, more than 10,000 prospective students and their parents have been introduced to U of G.

“It feels like we're always on the road — leaving on Sundays, not getting back until late Thursday, then back in the office Friday morning,” says Vercruysse. “It gets quite tiring by the time the fall travel season wraps up in early December.”

Meanwhile, back on campus, prospective students get a chance to visit the University in person during Fall Preview Day in late October. Organized by Janette Hogan of Admission Services, the day attracts more than 1,200 visitors and gives high school students a chance to meet members of the University community and see first hand some of the facilities they've heard about from Guelph recruiters.

Before Vercruysse and her team can even catch their breath from the travel phase of the recruitment process, it's time to gear up for the next step. Phase 2 starts in the winter, when the students who have, by now, submitted applications to the University are encouraged to visit campus to consider Guelph as their first choice when final offers arrive in June.

“We pique their interest in the fall,” says Vercruysse, “and we try to confirm their decision in the winter and spring.”



Susan Vercruysse

PHOTO BY MARTIN SCHWALBE

Campus Days, held each March for applicants and their parents, are the centrepiece of this portion of the recruitment process (see story below). This year, they drew about 2,500 visitors to tour the campus and meet with academic counsellors, faculty members, representatives of service units and members of student clubs and teams.

“Most were coming from around the province,” says Vercruysse, “but some had flown in from B.C., Alberta, Newfoundland and Nova Scotia to attend.”

The final and perhaps most important stage of the recruitment campaign occurs in late spring. This is when Admission Services toils to mail out the much-anticipated offers of admissions to the thousands of students being offered a place at Guelph for the fall.

That done, you'd think Vercruysse and the team could relax. No such luck. During the summer, recruiters assemble their materials and promotional literature and map out the next year's recruiting drive.

“Mo Oishi has the huge task of producing our main recruit-

ment document, the admissions handbook,” says Vercruysse. “It's very well received by students and high-school guidance counsellors and is at the heart of our fall presentations.”

Recruitment is a never-ending process, but the numbers show that it pays off. Since 1996, U of G has enjoyed a 15.9-per-cent increase in applications, at a time when other universities have suffered declines. That's because Guelph has the most extensive recruitment program of any university in the province, says Vercruysse.

U of G's appeal is growing not only in Ontario, but across the country as well, she says. “Most of our students are from Ontario, but we are increasingly targeting students in B.C., Alberta, Atlantic Canada and Quebec.”

International enrolment, dwindling at all Canadian universities in recent years, is also poised to rebound at Guelph, thanks to recruitment efforts, she says.

The Canadian government and the Asia Pacific Foundation have set up Canadian Education Centres (CECs) in Asia to help international students apply for study in Canada. Guelph has subscribed to the CECs in Thailand, Malaysia, Singapore and Hong Kong, and Vercruysse recently visited the centre in Hong Kong.

International efforts don't stop there. U of G is also actively recruiting in the United States. Liaison officer Mary Haggarty is U of G's main contact for U.S. recruitment.

And why are so many secondary school students seeking a place at Guelph? It's seasoned recruiters like Vercruysse who probably understand best what's on applicants' minds.

“Money is tight out there and people want value for their education dollar,” she says. “We can offer them a lot. We have a wide selection of academic programs with excellent co-op opportunities and experiential learning. Students are guaranteed a place in residence. We have top-notch service and facilities here, and the campus is gorgeous.”

Changing attitudes about postsecondary education, apprehension about a tightening labor market and concerns about getting the most out of a degree have forever altered the way students go about spending their university dollars, she says. Despite these challenges, however, the recruitment team still shows more and more students each year why Guelph is right for them.

“Students today are more savvy consumers of education than they were even five years ago,” says Vercruysse. “They are ruthless in their comparisons. They ask tough questions, and we want to make sure they make the best choice for themselves.”

And with enrolment at Ontario universities predicted to rise well into the next millennium, she expects that more and more young people in Ontario, Canada and abroad will decide the best choice is Guelph.

## Getting to Know Us

*Campus Days program invites applicants and their parents to see first hand what U of G has to offer*

**P**OURING RAIN didn't put a damper on Campus Days, the recent two-day event organized by Admission Services for high school applicants to Guelph.

This year's Campus Days, held March 18 and 19, drew more than 2,500 high school students and parents to visit U of G's facilities, meet members of the University community and obtain information about enrolment.

The event draws primarily Ontario students, but this year, some applicants came from as far away as

New York State and British Columbia.

In addition to comprehensive tours, applicants were encouraged to visit displays in the Athletics Centre to learn about residence life, overseas study opportunities, student awards and financial aid, admission details and co-operative education opportunities.

“It was a huge success despite the weather,” says Marisa Phillips, tour co-ordinator in Admission Services.

Academic departments, service units such as Hospitality Services,

Security Services, the U of G Library and various student organizations and clubs were represented during the event and helped Admission Services illustrate to applicants why they should come to the University of Guelph this fall.

“Campus Days may be organized by this department,” says Phillips, “but it's really the result of a lot of hard work by hundreds of people across the University community.”

In addition to the efforts of the entire Admission Services staff, organizers drew on the support of 125

student volunteer and 20 full-time student tour guides, who spent Campus Days ushering groups of applicants and their parents across campus.

Sixty-three residence students also helped out by allowing groups to visit their rooms and see what life in residence is like.

“Having the applicants meet the students is really the key,” says Phillips. “It really helps them if they hear about the benefits of studying here from people just like them.”

Janet Diebel, program counsellor

and liaison officer in the School of Engineering, praises the Campus Days concept.

“It's a great way for future students and their parents to see the campus and get a sense of the social and learning environment,” she says. “It's really ‘one-stop shopping.’”

Many applicants would agree.

“Thanks for a great day,” wrote one student, Meghan McGill, in an e-mail to Admission Services following Campus Days. “I left feeling happy that Guelph is my first choice for a university next year.”



# Three Components Address \$5.8-Million Funding Gap

Continued from page 1

Alastair Summerlee, dean of graduate studies, is pleased that the measures the committee proposed to the President's Budget Advisory Group (PBAG) successfully capture the values and priorities of the U of G community. PBAG reviewed and subsequently endorsed the EMC recommendations to SCUP.

"In formulating EMC's recommendations, we sought and I think achieved a balance among accessibility, debt load and strategic direction," says Summerlee. "It reflects the great deal of work put in by EMC to produce a package of recommendations that has the unanimous support of committee members."

"I'm happy with the recommendations," says graduate engineering student James Rodgers, who represented the Graduate Students' Association on EMC. He believes students' initial concerns about tuition increases, program deregulation and accessibility to international students were satisfactorily addressed as the committee drafted its recommendations. "The administration did listen to concerns of students, and we hope that's an ongoing, continual process over the years."

## NEW STUDENT FINANCIAL AID

In its budget recommendations, EMC called for a mix of options for student financial support. Most important, EMC endorsed a shift from a preponderance of merit-based scholarships to a balance between merit and need-based grants. The committee also recommended innovative approaches to financial aid,

including work/study and experiential programs. Undergraduate research assistantships will provide for significant research activity for qualified full-time students across campus, says Summerlee.

University accessibility awards and University merit awards would take the form of tuition waivers, awarded to students either for entry to U of G or to support continued studies, he says.

"The committee recommended the establishment of these awards so that we can advance Guelph's goal that, in time, no one is denied entry to the University or denied the opportunity to continue studies based solely on demonstrated financial grounds."

Besides enrolment and tuition increases, the preliminary budget proposes a combination of cost reductions and revenue increases that would identify a further \$1.94 million toward the \$5.8-million gap in 1998/99. These proposals in part reflected University-wide consultations, including discussions of the ad hoc committee on budgetary issues. Chaired by Nancy Sullivan, vice-president (finance and administration), this committee brought together 11 representatives of student groups and three members of the administration. (See story on page 1).

These cost-reduction and revenue measures are:

- Base reductions, including deletion of some positions that had become vacant through resignations, regular retirements and departures and early retire-

ment programs, and funding removed from Computing and Communications Services because of last year's completion of an equipment lease.

- Subject to negotiations and the fiscal condition of the plans, additional pension contribution savings of \$600,000 from the operating budget will be added to the \$4.1 million the University will save through its pension contribution holiday in 1997/98. That pension contribution holiday was negotiated last year with two major employee groups, representing about 70 per cent of the total budgeted costs of all regular full-time positions. Thus, the total savings reached through the pension contribution holiday in 1998/99 would be \$4.7 million.
- One-time increased contributions of \$300,000 from net revenues of Hospitality Services and Parking Services.

## THE \$1.7-MILLION SHORTFALL

The third component of the plan to address the \$5.8-million funding gap consists of a shortfall of \$1.7 million that the University proposes to carry forward into 1998/99 and identify solutions for prior to the November meeting of B of G. Options include year-end savings or unanticipated MET operating grant revenue, says Sullivan.

Other possible avenues for meeting the projected shortfall include: savings in the University utilities budget due to a milder winter; extra tuition revenue from higher-than-anticipated enrolment; or use of the

University's contingency fund, which has been doubled in size to \$600,000 in the preliminary budget to reflect the many uncertainties surrounding the MET grant.

As a last resort, budget unit heads would be asked to make reductions to their budgets. "If efforts involving new revenues, year-end savings and expenditure controls are not successful by the November board meeting, budget cuts may be necessary," says the SCUP report. This approach received support during consultations with all deans and dean's councils conducted by president Mordechai Rozanski; provost and vice-president (academic) Iain Campbell; and Prof. Ken Grant, director of institutional analysis and planning.

Rozanski says that, ultimately, the only answer to U of G's problem is increased public funding, something the University must continue to fight for. In its report, SCUP joins the administration in criticizing the Ontario government's continued disinvestment in postsecondary education and its lack of information about the level of operating funding that will be provided to universities in the coming year.

"The budget preparation was further hindered by the fact that the University has not yet received confirmation as to the level of Guelph's share of the MET grant, nor the value of the pay equity grant," says the report. "The ability of the administration to prepare and plan a fiscally responsible budget is severely diminished by the government's

continued unwillingness to appropriately fund higher education, to provide critical funding information prior to the start of the fiscal year or to guarantee that its decision to fold OSAP funding into postsecondary funding will not result in a decline in overall support in 1998/99 and 1999/2000."

In endorsing the University's preliminary budget proposals and consultative budget process, SCUP calls on U of G members to continue pushing the province to fund higher education at adequate levels. Notes the SCUP report: "It is becoming increasingly difficult to prepare for the future when, year after year, all budget decisions revolve around how to address a shortfall. The continual cuts of recent years have resulted in the progressive weakening of all units and programs. There is evidence that high-quality students and faculty are leaving Ontario for institutions in other provinces and outside of Canada."

Stressing that he and other administrators are pressing the provincial government to halt the continued erosion of funding for postsecondary education (see page B of budget supplement), Rozanski says: "I appreciate the extraordinary effort made by many members of our community — faculty, staff and students — in formulating a basket of proposals to cope with our budget problem. Although the proposed solutions are no cause for celebration, they represent a balanced approach and a bridging strategy to a better future — for which we all must fight."

# Ad Hoc Committee Gives Students Input into Budget Process

Continued from page 1

In particular, many of the preliminary budget proposals were discussed by an ad hoc committee on budget issues, a 14-member committee composed of 11 representatives of student groups across campus and three members of the University administration. Chaired by Nancy Sullivan, the committee was established to give students an opportunity for input into the budget process, complementary to the governance process involving largely faculty and staff. The committee held four meetings to consider ideas for closing the projected funding gap before reporting this month to PBAG.

"The committee achieved an understanding of the diverse perspectives of the administration and student groups on several issues and

maintained an effective and respectful working relationship while pursuing its mission," says the report submitted to PBAG.

The group supported the idea of raising parking permit fees and increasing summer conference activity to raise more revenue.

"Some members felt that profits from Hospitality Services activities should be used to meet the operating budget gap rather than to keep the cost of meal plans in residence lower than at other universities," says the report. "These members noted that it is a student's choice to live in residence, not a requirement. Other committee members disagreed with this approach. However, all members agreed that Hospitality Services was a unit that could be expected to make a special contribution to the

operating budget gap."

Some committee members called for extending the repayment schedule for the deficit incurred through the 1991/92 Cresap cost-saving program, the special early retirement program in 1994 and the restructuring costs associated with the 15.4-per-cent reduction in MET operating grants to U of G in 1996/97 under the Common Sense Revolution. The administration had already won agreement from Board of Governors to extend its deficit repayment schedule from 1998/99 to 2003/04.

"Some members of the committee believed that the deficit repayment schedule should be extended beyond 2003/04," says the report. "This would allow for smaller annual repayments and thereby reduce the \$5.8-million gap. Administration

members noted that the structural deficit facing the University is close to \$9 million; one-time measures such as the pension contribution holiday are being used, but these cannot continue forever. Nevertheless, some members believe that this option merits further consideration." That initial recommendation has not been incorporated into the preliminary budget.

During the second student open forum March 17, Summerlee and Miles outlined to about 25 students the reasons for next year's projected funding gap and the proposed solution. One student asked how Guelph plans to maintain quality programs if entering grade averages are allowed to fall to accommodate a proposed higher enrolment target. Rooke said administrators are confi-

dent they can meet the proposed target without having to dramatically lower entering averages. She added that a study being conducted this year will suggest ways to improve training of teaching assistants.

Responding to a student who wondered why Guelph could not simply demand that the province halt its cuts to education, Rozanski said he and his counterparts across Ontario continue to press for restored public funding of universities in meetings with the premier and minister of education and training, and through the media. In particular, said Rozanski, universities will need public money to accommodate an anticipated "double cohort" of applicants in 2003, when the province eliminates Grade 13. "It's not a subsidy, it's an investment," he said.

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Used washer and dryer, white; white canopy bed, dresser and chair, Ext. 2366 or 763-4409.

1930s handcrafted solid Canadian rock maple furniture: seven-drawer desk with chair, blanket box, two single beds, excellent condition, 763-7834.

1986 Mercury Topaz, automatic, power windows and locks, air, no rust, Glenn, Ext. 6307 or send e-mail to gbenoy@uoguelph.ca.

Furnished one-bedroom 38-foot mobile home, appliances, 38- by eight-foot deck, large lot, quiet campground, swimming, boating on inland lake, four miles north of Sauble Beach, excellent condition, Lynn, Ext. 4157, 763-0819 or send e-mail to lbardwell@ovcnet.uoguelph.ca.

Estate lot in Fox Run Estates, Aberfoyle area, one acre with 164-foot frontage, 763-7569.

Fly fishing tackle: Sage 380 RPL, House of Hardy reel (The Flyweight), two spools, Bruce, Ext. 3231 or leave message at 763-4636.

Large desk, brass day bed, wood single bed with boxspring, large dresser with mirror, small tables, 766-9466.

## FOR RENT

Furnished one bedroom in two-bedroom basement apartment, quiet home, sitting room, private bath, kitchenette, shared laundry, two blocks to campus, on bus route, no parking, Ext. 6528 or 822-2336.

Two-bedroom townhouse to sublet, washer, dryer, fridge, stove, parking, quiet end unit in secure area, \$675 a month plus utilities, 837-8668.

Large one-bedroom attic loft apartment in elegant Victorian home, non-smokers, no pets, suitable for single person or couple, mature individuals only, available May 1, \$650 inclusive, 837-1717.

Furnished one-bedroom apartment on main floor of house, air conditioning, eight-minute walk to campus, close to Speed River, pets welcome, available May to August or by the month, cable and all utilities included, Lori, 837-0743, e-mail: lbierbrier@ovcnet.uoguelph.ca.

Furnished three-bedroom house with finished basement, attached garage, central air and vac, dishwasher, fenced mature yard, 10-minute walk to campus, available August 1998 to July 1999, \$1,300 a month plus utilities, Ext. 8946 or send e-mail to live@css.uoguelph.ca.

Three-bedroom home in St. George's Park area, five appliances, central air, hardwood floors, close to parks, bus, shopping and campus, available May 1, \$850 a month plus utilities, 822-8245.

Cottage four miles north of Sauble Beach, suitable for two adults and two children, TV, VCR, microwave, barbecue, no pets, non-smokers, Lynn, Ext. 4157, 763-0819, e-mail: lbardwell@ovcnet.uoguelph.ca.

Furnished four-bedroom home with finished basement, five-minute walk to campus, mature garden, available June 1, \$1,475 a month, Mike, Ext. 2169 or send e-mail to mike@css.uoguelph.ca.

Furnished two-bedroom apartment in quiet home, sitting room, private bath, kitchen, shared laundry, two blocks to campus, on bus route, Ext. 6528 or leave message at 822-2336.

Three-bedroom townhouse condo in Blue Mountain/Collingwood, fully equipped, three baths, two fireplaces, Jacuzzi, central air, heated pool, hot tub, tennis courts and sauna at rec centre, view of mountain, beach within minutes, \$750 a week, 837-1379.

## LOST

Gold pendant, "S"-shaped, with diamond and two amethysts, sentimental value, reward, 836-3869.

## WANTED

Quiet, non-smoking OVC graduate student seeks room for one night per week, plus occasional weekend during on-call duty, starting May 1, Stephen, call 519-284-4024 collect or send e-mail to sleblanc@agris-mart.on.ca.

Full-size van equipped to seat six with room for a lot of equipment, vehicle must be reliable enough to make a return trip across the country, price limit is \$5,000, Jeff, 822-8225 or send e-mail to usand-wilbur@sympatico.ca.

Person to share large old stone house on one acre in downtown Guelph, laundry, parking, storage, large kitchen and living areas, non-smoker, no dogs, available May 1, \$400 a month plus utilities, Meg, Ext. 4786 or 822-2430.

Bomb-proof horse for novice rider, excellent home, will be used for hacking and light rink work, no vices or unsoundness, Ursula, Ext. 2722 or 821-7233 evenings.

Single room for four months, September to December 1998, preferably with non-smokers, laundry facilities, Andrea, 826-6904.

Two-bedroom house, townhouse or apartment from April 1 to July 31, non-smokers, in Guelph or a short commute, 240-4488 during office hours.

## AVAILABLE

Free journals and magazines: *National Geographic* from mid-1970s to 1997, *Canadian Journal of Statistics* from mid-'80s to 1996, *Century Home and Country Living* from mid-'80s to mid-'90s, some back issues of *Survey Methodology* and *Journal of Official Statistics*, Ann, Ext. 2377.

## Just Trying to Keep the Customer Satisfied

**P**HYSICAL RESOURCES is looking to its customers to determine how it can best meet the needs of the University community.

The department is implementing a customer-oriented service program designed to enhance the existing services provided by Physical Resources and increase communication with its campus customers, says Garry Round, executive director of Facilities and Hospitality Services. The program will involve gathering information on customer satisfaction—information that will influence the department's future decisions about where to concentrate its service efforts and how to provide better service to the University, he says.

To kick off the program, Physical Resources is distributing customer surveys to random and selected staff and students on campus. Respondents are being asked to rate the services offered by Engineering and Maintenance, Planning and Development, Grounds and Transportation, Custodial Services and Physical Resources administration.

Physical Resources responsibilities include the planning, development and upkeep of 5.4 million square feet (2,628 acres) of space, the cleaning of 5.1 million square feet of building space (the equivalent of 4,000 average-sized houses), and the mechanical, electrical and structural maintenance and designing of equipment and buildings in an area equivalent to a small city. The staff consists of engineers, tradespeople, custodians, grounds service staff, vehicle and transportation staff, and administrative personnel.

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## ARBORETUM

Naturalist Chris Earley leads two warbler workshops in April. Level 1 runs April 14 and 21 at 7 p.m., with a day-long field trip scheduled for May 10. Cost is \$58. Registration deadline is April 7. Level 2, which focuses on less commonly seen southern Ontario warblers, runs April 16 and 23 at 7 p.m. Cost is \$39. Registration deadline is April 9. To register, call Ext. 4110.

*Two and Two Make Sex*, a comedy written by Richard Harris and Leslie Darbon and directed by John Snowdon, runs at the Theatre in the Trees Saturdays until April 25. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45. For information, call Ext. 4110.

## ART CENTRE

The exhibition "J.J. Tisot: Prints from the Collections of the Art Gallery of Ontario" opens April 7 at the Macdonald Stewart Art Centre and continues to May 10. Brenda Bix, a curatorial assistant at the AGO, gives a gallery talk April 7 at noon.

## CONCERTS

The Thursdays at Noon concert series in MacKinnon 107 features student soloists April 2.

It's "Jazz Night at the University Club" April 2 at 8 p.m. as Prof. Howard Spring, Fine Art and Music, directs the U of G Jazz Ensemble. Tickets are \$2 at the door.

The U of G Orchestra and Concert Winds, conducted by Henry Janzen and John Goddard, perform April 3 at 8 p.m. in War Memorial Hall. Tickets are \$8 general, \$6 for students and seniors.

The Jazz Society's music and fine art series continues with "Songs In The Key of Eh!" April 5 in Thornbrough 100. An exhibition of works by fine art students will be on display beginning at 6:45 p.m. A concert featuring (BM)2 Consort begins at 8 p.m. Tickets are \$8 and are available at

the UC box office or at the door.

Classical and flamenco guitarist Bozidar performs April 8 at 12:30 p.m. in Lower Massey Hall. The free concert is sponsored by the Spanish studies and European studies programs. Everyone is welcome.

## LECTURES

The French studies division in the School of Languages and Literatures is sponsoring two talks by Quebec writer Madeleine Monette April 7. She will give a reading in French from her latest novel, *La Femme furieuse*, at 2:30 p.m. in MacKinnon 316. This will be followed by a question-and-answer period. At 5:30 p.m. in MacKinnon 315, Monette will lecture in English on "The Writer and the City."

## NOTICES

The Campus Ministry is coordinating a seven-week yoga course for beginners or practitioners. Classes run Tuesdays from 12:30 to 1:30 p.m., beginning April 7. Cost is \$56. To register, call Rev. Lucy Reid at Ext. 2390 or Barbara Quinlan at 821-3457.

The Inter-American Institute for Co-operation in Agriculture is offering five grants to graduate students in agriculture to carry out two- to three-month research projects in Latin American and Caribbean institutions. Eligible fields are agricultural science, agricultural economics, veterinary medicine, biotechnology and environmental protection. For information and application forms, visit the InfoCentre in the Centre for International Programs or visit the Web site [www.iicacan.org](http://www.iicacan.org).

The International Society for Technology in Education's Seventh International Conference on Telecommunications and Multimedia in Education (TelEd '98), slated for Oct. 30 and 31 in Victoria and New Orleans, is calling for participants. This year's theme is "Telecommunications and All That Jazz." Deadline for submissions is April 10. For

more information, visit the Web site <http://teled98.openschool.bc.ca> or call Shelly Akam at 250-953-7400.

## SEMINARS

Graduate student seminars continue in the Department of Animal and Poultry Science. On April 2, the topics are "Water Nutrition of the Periparturient and Early Postparturient Dairy Cow" with Vern Osborne and "Deposition of Genetically Engineered Human Antibodies to the Egg Yolk of Hens" with Mansoor Mohammed. The series concludes April 9 with Shannon Salter focusing on "The Nutrition of the Domestic Cat and Its Relevance to Exotic Fields" and Flavio Schenkel explaining "Studies of Selection Bias on Estimation of Genetic Parameters and Breeding Values for Quantitative Traits." The talks run from 11:30 a.m. to 1 p.m. in Animal and Poultry Science 141.

The Department of Chemistry and Biochemistry presents Eric Reiner of the Ontario Ministry of the Environment discussing "The Analysis of Dioxins and Toxic Organic Compounds in Environmental Samples" April 7 at 4 p.m. in MacNaughton 222.

Vance Trudeau of the University of Ottawa is guest speaker March 31 in the Axelrod Institute of Ichthyology's "Loaves and Fishes" seminar series. His topic is "Brain Regulation of Seasonal Reproduction in Teleosts." On April 7, Prof. Marvin Tung focuses on "Food Packaging: General Principles and Practices in Food Preservation." "Electronic Surveillance" is the focus of Leon Carl and Tara Frezza April 14. The talks begin at 12:30 p.m. in Axelrod 168.

"The Importance of Structural Modification of Chemical Contaminants in Environmental Toxicology and Risk Assessment" is the topic of a Plant Biology Council seminar April 1 at 3:15 p.m. in Axelrod 259. Guest speaker is Bruce Greenberg of the University of Waterloo.

The Department of Pathobiology presents a talk by Dorothy Bienzle of

the University of Georgia, a candidate for the faculty position of clinical pathologist in the department, April 2 at 9:10 a.m. in OVC 2152. Her topic is "From HIV to FIV: Similarities and Differences."

The Department of Biomedical Sciences presents graduate student seminars Fridays at 12:30 p.m. in OVC 1642. Next up is Sirirak Chantakru discussing "Uterine NK Cell Homing Pattern During Pregnancy in tge26 Mice" April 3. Jen Robertson explains "Distribution of the Epidermal Growth Factor Receptor in Developing Hair Follicles of C57 and 'Downy' Mice" April 17.

The Department of Physics winter seminar series concludes April 7 with John van Zanten of Johns Hopkins University considering "Brownian Motion in Viscoelastic Media" at 4 p.m. in MacNaughton 113.

The biochemistry seminar series presents graduate student Fourouzan Mohammadi discussing "The Incorporation of Tryptophan Analogues into the Enzyme Domain of *Pseudomonas aeruginosa* Exotoxin A" April 9 at 1 p.m. in MacNaughton 222.

The Department of Pathobiology presents Alfonso López of the Atlantic Veterinary College discussing "Meconium Aspiration Syndrome in Neonatal Calves" April 9 at 3:30 p.m. in Pathobiology 101.

## THEATRE

Student-directed one-act plays run April 2 to 4 at 8 p.m. in Lower Massey Hall. Admission is \$3. The student-directed play *A Fertile Imagination* runs March 29 to April 1 at 8 p.m. at the Inner Stage. Tickets are \$4.

## SYMPOSIUM

An Environmental Biology Graduate Student Symposium runs April 1 from 9 a.m. to 5 p.m. at the Laboratory Services Division, 95 Stone Rd.

W. Discussion will focus on "Eclectic Endeavors in Environmental Biology: Applying Science to Today's Problems." Speakers include Prof. Michael Ruse, Philosophy, and Jim Quinn of McMaster University.

The annual Billy Taylor Road Race, a major fund raiser for the Guelph-Wellington branch of the Canadian Red Cross, is May 3. Participants run either five or 15 kilometres, beginning at 10 a.m. at Alumni Stadium. For more details or pledge forms, call 836-3523.

The Arkell Schoolhouse Gallery presents Tamarack April 4 at 8 p.m. Tickets are \$15. On April 11, CBC radio's Peter Togni hosts "Spring Reflections," an evening of music, poetry and movement featuring Veronica Tennant. Tickets are \$40. For reservations, call 763-7528.

The Rotary Club of Guelph's 1997/98 travelogue program wraps up April 8 with Rick Ray discussing "Iceland — of Vikings and Valkyries" at 8 p.m. at E.I. Fox Auditorium. Tickets are \$5 at the door.

A transgender, bisexual, lesbian and gay community meeting to discuss a Rainbow Alliance of Wellington County will be held April 1 at 7 p.m. at the Youth Resource Centre. For more information, call OUTline, a support and resource line for people dealing with transgender, bisexual, lesbian and gay issues, at 836-4550.

The Multiple Sclerosis Society holds its annual Super Cities Walk April 19. Registration begins at 8:30 a.m. at the River Run Centre. Walk start time is 9:30 a.m. Volunteers are needed to help out during the walk. For more information, call Patricia Brown at 836-8907.

Guest conductor Wayne Riddell and organist Ian Sadler join the Elora Festival Singers to perform requiems by Maurice Duruflé and Eleanor Daley April 5 at 3 p.m. at St. John's Church in Elora. Tickets are \$28 and are available at 846-0331.

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## IN THIS ISSUE

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- 4 GUELPH is committed to removing systemic barriers to university access and academic success.
- 5 THE TIES that bind keep food scientist Terry Maurice branching out on his family tree.
- 6 THE CALL of the wild is coming to a College of Biological Science Web site near you.



## THE VOICES OF EXPERIENCE

Ross Knechtel and Helen Woodside are two of five senior volunteers who come each week to the second-year family studies course "Adult Development and Aging" to share their time, life stories and views and help students half a century their junior understand what it's like to grow older. See story on page 6.

PHOTO BY MARTIN SCHWALBE

# Student Motion on Underfunding Gets B of G Nod

*Statement urges firm stand against provincial disinvestment in postsecondary education*

**B**OARD OF GOVERNORS has approved a student-sponsored motion denouncing provincial disinvestment in postsecondary education and calling for continued lobbying to raise awareness of the impact of university underfunding (see page 3 for the full text of the motion).

Following a presentation by student governor Colin Dawes, board members unanimously passed the motion during their April 2 meeting, at which they also approved the University's preliminary Ministry of Education and Training (MET) operating budget for 1998/99. The motion was seconded by Warren Jestin and endorsed by president Mordechai Rozanski.

"I'm optimistic about the enhanced student involvement and participation in the financial process," says Dawes, who, along with fellow student governors Nathan White and Christoph Wand, wrote a statement containing the motion in response to students' urging that B of G take a firm stand against continued university underfunding in Ontario.

The governors resolved to continue to oppose funding reductions, to urge the government to restore public funding, to oppose across-the-board deregulation of all programs, to denounce the increased student debt burden, to oppose fi-

nancial aid programs based mostly on loans, and to retain the University's standing as a public — not a private — university. The motion also supports continued lobbying by Rozanski, both independently and through the Council of Ontario Universities, for need-based provincial aid programs and for strategic reinvestment in the province's universities.

In supporting the motion, Rozanski told governors that the solutions to U of G's \$5.8-million funding gap contained in the pre-

liminary budget are short-term and less than desirable. "We cannot cut our way to success, only to failure," he said. "The only real solution is increased public funding of Ontario universities."

The statement notes that successive provincial funding cuts now place Ontario dead last among the provinces in per-capita funding for postsecondary education.

Continued government disinvestment in Ontario's universities has led to "intolerable" increases in tuition, higher student debt, reduced

quality of education, and increased reliance on corporate support for teaching and research, according to the statement. "These changes have resulted in reduced access to higher education, particularly for lower-income and disadvantaged groups, and are likely to produce a two-tiered education system where the primary criterion for acceptance to the high-quality programs will be an individual's ability to pay."

B of G vice-chair Tanya Lonsdale says she's pleased that students took the time to draft this "really impor-

tant" motion. Its passage reflects a shared sentiment among board members that continued disinvestment in postsecondary education is harming Ontario universities, she says. "Members may have some disagreements about how to deal with the reality, but we all agree very strongly that this has had negative impacts."

Graduate Students' Association (GSA) president Samantha Bogoross says she fully supports the motion and will take it to the GSA for ratification.

*Continued on page 3*

## Novartis Opens Its Doors

*Crop protection company's move recognizes Guelph's role in growing agrifood industry*

**N**OVARTIS Crop Protection Canada Inc. celebrated the opening of its new headquarters April 2 in U of G's Research Park with a hopeful message for the future.

"Our relocation to Guelph (from Mississauga) reinforces the company's commitment to Canadian agriculture," said company president Warren Libby. "We decided to relocate not only because Guelph is globally recognized for its research, but because Guelph is a city that it agriculture-friendly. People in

Guelph understand that it takes technology to put safe, affordable and abundant food on their tables."

Guelph MPP Brenda Elliott noted that Guelph is at an important stage in the future of the agrifood industry. "Novartis coming here is a recognition of the provincial presence in the city, through the Ontario Ministry of Agriculture, Food and Rural Affairs and its partnership with the University of Guelph," she said. "We are keen on seeing the agrifood business grow and prosper in Ontario."

The new headquarters, designed by architect Jim Fryett, houses about 45 employees involved in researching and marketing Novartis products. A leader in the crop protection industry, Novartis Crop Protection Canada Inc. is renowned for its commitment to research, development and marketing of technologically advanced agricultural products. Research and development activities centre on developing crop protection products and seed treatments for corn, soybeans, cereals, oilseeds, potatoes, vegetables,

fruit and other horticultural crops.

The company recently won the Novartis Global Award for business excellence. In 1997, Novartis Group sales were \$30.1 billion worldwide. The company annually invests more than \$2.8 billion in research and development. Based in Basel, Switzerland, Novartis employs about 87,000 people and operates in more than 100 countries around the world. In Canada, Novartis has offices in Guelph and Calgary and research farms in Plattsville, Ont., and Elm River, Man.





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# SENATE REPORT

## Caucus commends administration for student involvement in budget process

SENATE RECEIVED U of G's 1998/99 Ministry of Education and Training operating budget for review and comment March 31. Most senators were supportive of the position being taken this year.

Prof. Gerry Manning, chair of the Senate Committee on University Planning (SCUP), thanked members of the administration and Enrolment Management Committee for their hard work in preparing the budget and for striving to make the budget process as consultative and transparent as possible.

Carolyn Barkey, chair of Student Senate Caucus, rose to commend the administration for its concerted effort to involve students in this year's budget process, calling it a good first step. She said the caucus supports the University in its push for restoration of public funding and encourages the administration to involve students in this effort. Students, the administration and the Council of Ontario Universities should continue to work together in lobbying the government for more funding, she said.

The caucus recognizes the budget constraints facing the University and understands the need to adopt a mix of approaches, said Barkey, but it's unfortunate that, in these times of increasing debt loads, students should feel relieved that tuition rose by "only" 7.5 per cent and

that U of G chose not to differentiate fees.

Student Senate Caucus is worried how future students will pay for their education and urges the administration to implement recommendations contained in the Report on Student Accessibility and Affordability in Education (which was presented for information at the Senate meeting). It is critical that universities understand the impact of increasing tuition on accessibility before making further decisions on tuition, Barkey said.

Student Senate Caucus moved that an ad hoc committee on budget issues, composed of at least 11 students and no more than three senior administration staff, be established by Oct. 1, 1998, to address the continued structural deficit, with a mandate to review, develop and discuss ideas related to expenditure control, cost savings and revenue enhancement. Assistance will be provided to the committee in the form of a student adviser. SCUP should receive reports from the committee during all stages of the preparation of the 1999/2000 operating budget. Caucus also moved that the Senate Committee on Awards investigate and report back to Senate in September 1998 on the distribution of all student awards at U of G and measures to address issues raised by the ad hoc committee on budget issues.

Both motions were passed by Senate.

### PROPOSAL REVISED

SCUP presented for approval a revised proposal for a lifestyle assessment, sports medicine and nutraceutical research centre at U of G. The original proposal, approved in principle at the January meeting of Senate, had raised concerns about the consultation process surrounding it. Since then, a small committee — made up of members of the Department of Human Biology and Nutritional Sciences and the Department of Family Studies — was struck to review the document, resolve outstanding concerns and present a revised report to SCUP. Letters of support were also received from the Department of Psychology and Office of Open Learning.

SCUP recognizes that the role of the centre will evolve over time and anticipates the mandate for the centre to eventually broaden to incorporate both family studies and psychology. SCUP's review in five years will determine how well the centre has met this goal.

### DEPARTMENT NAME CHANGES

Senate approved a change in the name of the Department of Family Studies to Department of Family

Relations and Applied Nutrition. This change reflects the department's commitment to working together as a unified department and finding proactive ways to allow for more collaboration and integration of interests and programs in the department. Previously, applied human nutrition was a division within the Department of Family Studies.

### LIBRARY ACQUISITIONS

The Senate Library Committee (SLC) presented an interim report on the guiding principles and goals for a library acquisitions allocation mechanism. The existing index formula, adopted in 1995, is under review as mandated by Senate. The SLC report indicates that numerous factors will come to bear on the revised model, including government funding cuts and changing resource needs. The report presents a statement of general principles and goals that an allocation mechanism should strive to achieve.

SLC chair Prof. Warren Stiver, Engineering, reported that once the committee is comfortable that the principles meet with the approval of the University community, the allocation committee will develop a model that reflects the principles.

### EDUCATIONAL EQUITY

Senate also approved and applauded U of G's educational equity statement as presented by the Senate Executive Committee. The statement is printed on page 4.

### OTHER BUSINESS

In other business, Senate received for information a progress report on U of G's new student information system, Colleague, and the schedule for internal reviews of academic units.

Prof. Carlton Gyles, U of G's representative on COU, told Senate that COU appeared before the provincial Standing Committee on Finance and Affairs and urged it to consider a three-point plan to help Ontario universities — provide public funding at the level of the national average, enhance student aid programs and renew the commitment to research excellence.

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**PARKING RATES RISE**

Board of Governors has approved the first increase in six years for U of G parking permits. Effective May 1, the annual commuting permit will cost \$183, an increase of \$24. Premium parking will rise to \$563 from \$489. Resident students will pay an extra 60 cents a semester. Fines for parking in a fire route or having no valid permit displayed will also increase, as will the service charge for replacing lost or stolen permits. Lucie Turner, head of Parking Administration, notes that even with the increase, U of G's 1998/99 commuting parking rates are considerably lower than those charged at comparable Ontario universities in 1997/98. Waterloo's rate, for example, is \$240 per year; McMaster charges \$345. Nancy Sullivan, vice-president (finance and administration), says the increase will enable Parking to contribute an additional \$100,000 towards meeting the University's \$5.8-million funding gap. It will also fund some critical road and parking lot repairs and safety measures in and around parking lots.

**WORLD EQUINE SYMPOSIUM SET FOR AUGUST**

U of G will host the World Equine Airways Symposium Aug. 4 to 9. Organized by Prof. Laurent Viel, Clinical Studies, along with Ed Robinson of Michigan State University and Norm Ducharme of Cornell University, the symposium will bring renowned specialists from around the world to discuss their work in equine respiratory health. For more information, call Viel at Ext. 4090 or send e-mail to weas@uoguelph.ca.

**OAC NETWORK SELECTED TO SUBMIT PROPOSAL**

The selection committee for the Networks of Centres of Excellence program has chosen an OAC group as one of 11 across Canada to submit a full proposal for network funding by May 1. The 11 were chosen from 72 letters of intent. The OAC project, led by dean Rob McLaughlin, focuses on rural sustainable communities.

**(GWC)\* MEETS MAY 1**

The Guelph-Waterloo Centre for Graduate Work in Chemistry will hold its annual meeting and seminar May 1 at the University of Waterloo. The meeting begins at 1 p.m. in Rnrm 1301 of the Davis Centre. At 3 p.m., Prof. Richard Oakley discusses "Inorganic Rings, Chains and Quips" in Room 1302. This will be followed by a poster session, reception and awards presentation. The seminar is open to all members of the University community; all other events are open to (GWC)\* members only.

# Statement to the U of G Community on Trespass Court Case and Student Judicial Hearings

On April 8, the provincial court rendered its decision in the trial of the students charged with trespass following the March 27, 1997, Board of Governors meeting. Justice of the peace Avis Rodney found the students guilty as charged and fined each defendant \$55, stating that the court wanted to send a clear message that this kind of civil disobedience will not be tolerated.

The court's decision affirms an important principle, namely that although the University (and society at large) respects the expression of diverse opinions — including those that vigorously dissent from the majority view — it cannot condone or excuse behavior that disrupts its ability to function or that threatens harm to persons or property in the name of political action. Indeed, to suggest that such behavior is a legitimate means of conveying a point makes a mockery of democratic institutions.

It is important to note that the charges dealt with by the court were separate from the charges of disruption the University brought under its

own code of student rights and responsibilities, and that two different jurisdictions have been involved. Justice of the peace Rodney alluded to this when she observed that the two processes were independent, but that the University might wish to take into account the fact that the students had been convicted.

The University's primary interest throughout has been in delineating just where the boundary of legitimate protest lies, rather than in punishment. We have relied on the detached view of impartial judicial processes — internal and external — to confirm our belief that the conduct of the students involved did, in fact, cross the line that separates acceptable from unacceptable forms of protest.

As a result of the court's decision, the students have been found to have transgressed that boundary. In the interests of turning the page on this affair, and to build on the openness of the dialogue developing with students and student groups on campus, the University sees no need to continue pursuing the internal pro-

ceedings for the purpose of determining guilt or meting out further sanctions. Accordingly, Security Services will withdraw the charges brought against the students under the student rights and responsibilities code.

A recent statement by Nobel Laureate professor John Polanyi seems particularly apt to the circumstance: "If this institution [the university] stands for anything, it stands for the fact that ideas matter deeply and yet can be debated civilly. Not only can, but must, for without civility, there is no discourse; without discourse, no change; and without change, no hope."

It is in the interest of upholding this fundamental value that the University reaffirms its respect for dissent and protest. As always, however, it will take appropriate action where warranted to preserve the principles and code of conduct in the University of Guelph student rights and responsibilities policy.

President Mordechai Rozanski

## B of G Approves Student Motion

*Continued from page 1*

cation. Commending the board for supporting the student motion, she says the statement could have included more detail, particularly a specific commitment not to increase tuition fees.

Following the public portion of the meeting, the board also engaged in a candid discussion with several student observers about postsecondary funding, tuition fees and student debt.

The observers included students who had been invited to the meeting as well as those who had arrived unannounced. Their discussion was sparked by one student's impassioned remarks to chancellor Lincoln Alexander about student debt loads and the chancellor's equally heartfelt rejoinder. Several students then took the opportunity to voice their concerns about funding issues and about the consultative process undertaken by the University before the budget presentation.

Responding to those comments, several student board members and student observers pointed out that the University community had been invited to discuss the preliminary budget during numerous meetings held by administrators with various campus bodies, including an ad hoc budget committee established at students' behest.

"I felt students were given a chance to comment and get in on the process," says Devinder Thiara, who represented the College of Arts on

the ad hoc committee. He says complaints about lack of consultation or student representation discredit individuals who did involve themselves in budget discussions.

During the board meeting, Bogoros rejected the contention that the consultation process had been token or a sham. She also expressed impatience with last-minute criticisms by some student observers of the Enrolment Management Committee's recommendations, noting that those same observers had failed to attend open meetings called expressly to solicit student input.

Although the University could further improve its consultation process, says Bogoros, "I feel there have been more opportunities for student involvement." She says several ideas proposed during the consultation process, including a number of concerns expressed by the GSA, had been incorporated into the preliminary budget.

The board's decision to adopt a written statement on disinvestment is "an important first step" for the University, she says. "It's important for governing bodies to set things straight for the government."

The following is the student-proposed motion that went to Board of Governors April 2:

Be it resolved, that the University of Guelph Board of Governors, in concert with the Central Student Association, Graduate Students' Association, Senate and administration:

- opposes the ongoing reduction in funding to postsecondary education;
- opposes across-the-board deregulation of all programs;
- denounces the increased burden placed on students in the form of student debt;
- opposes financial aid programs that are predominantly loan-based;
- supports the University of Guelph remaining a public institution and will resist its privatization;
- supports the presidents' continued lobbying both independently and through the Council of Ontario Universities (COU) for provincial financial aid programs that are primarily based on grants and bursaries;
- urges that COU be informed of this motion and that the community be informed on a regular basis of action taken both by the University and COU on these matters;
- urges that continued efforts be undertaken to raise the awareness of the impact of this underfunding on all members of the U of G community — students, staff, faculty and alumni — and on society as a whole.

## PEOPLE

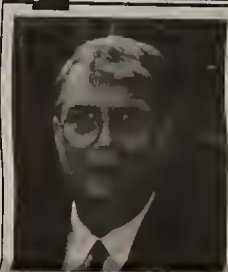
**ENVIRONMENTAL BIOLOGIST NAMED JOURNAL EDITOR**

Prof. Jack Trevors, Environmental Biology, has been appointed to a three-year term on the editorial board of the journal *Applied and Environmental Microbiology* published by the American Society for Microbiology. Trevors has also been appointed series editor for an environmental science book series published by Kluwer Academic Publishers in the Netherlands.

**HISTORIAN GIVES KEYNOTE ADDRESS IN GERMANY**

Prof. Gil Stelter, History, recently gave the keynote address at the annual conference of the Association for Canadian Studies in German-Speaking Countries at Grainau in the Bavarian Alps. He spoke on "Canadian Cities as a Reflection of Canadian Society." He also participated in the closing panel on "The Future of the Metropolis."

## MEMORIAM

**LARI WESTER**

Prof. Lari Wester, School of Landscape Architecture, died suddenly April 2 at the age of 61. A native of Texas and graduate of Texas A&M, he earned his master's degree from the University of Oregon and taught at Louisiana State University before joining U of G in 1971. He was the longest actively serving faculty member in the school.

During the 1970s, Prof. Wester was involved in a number of large multi-year projects with Ontario Hydro and Parks Canada. He was an invited speaker at many communication conferences throughout his career and wrote two highly successful graphic communication books, *Think and Do Graphics* and *Design Communication for Landscape Architects*. He taught graphic communication and design for 25 years and was well known for his applied work in nighttime design and lighting.

He is survived by his wife, P.J., and one son, Lari Jr.

**LYLE O'NEIL**

Lyle O'Neil, former bursar of OAC, died March 27 at the age of 88. He is survived by his wife, Glorina; two daughters, Sandra of Listowel and Alice of Waterford; seven grandchildren; and eight great-grandchildren.



# The University of Guelph's Educational Equity Statement

*"Action with respect to individuals within designated groups is needed to bring us closer to the ideal of educational equity for all"*

**Editor's note:** In 1994, the Anti-Racism and Race Relations Task Force recommended that an educational equity statement be drafted. The provost took responsibility for this task. The final version of the statement was approved by Senate March 31 and is reprinted here.

**T**HE UNIVERSITY OF GUELPH is committed to the removal of any systemic barriers to university access or academic success based on race, color, creed, religion, age, gender, sexual orientation, marital status, family status, ancestry, ethnic origin, place of origin or disabilities, as defined in the Ontario Human Rights Code. We recognize and respect the right of students, faculty and staff to pursue their work and study in a university environment that is free of systemic barriers to the pursuit of knowledge in all its forms and free of harassment, discrimination, intimidation and abuse. We also recognize and respect the value of freedom of expression generally and academic freedom in particular.

The University of Guelph recognizes that many groups of students have been underrepresented in university programs, to their personal disadvantage, to the detriment of those programs and to the detriment of society. Accordingly, we will strive to increase the access, retention and graduation of members of such groups. In support of these goals, we will seek to provide a teaching and learning environment that is supportive and welcoming, in which the values of mutual respect and civil discourse prevail and in which the enriching nature of diversity is both recognized and embodied.

## CONTEXT AND DEFINITION

### A. From employment equity to educational equity

In the past decade, the concept of equity has become embedded as a precept of Canadian society. In the context of employment, it was enacted into law by the federal government in 1986 with the passing of the Employment Equity Bill. This law addresses equity in employment and endorses the concepts of reasonable accommodation and affirmative action to create and maintain a working environment free from systemic discrimination. The University of Guelph is strongly committed to employment equity.

The companion principle of educational equity is less clearly defined than employment equity and is not specifically rooted in legislation, either provincial or federal. It does, however, fall generally within the Charter of Rights and Freedoms and the Ontario Human Rights Code.

While the principle of educational equity is not referred to by name in the mission statement of the University of Guelph, an institutional commitment to educational equity follows from the language and concepts contained in that core document.

### B. What is educational equity?

The term "educational equity" refers most broadly to a condition of fairness with respect to educational opportunities for all people. Educational equity is a desired state rather than a consistently present reality; the concept of educational equity attracts our attention now because inequities exist and because action of some kind is necessary if these inequities are to be eliminated.

### C. Designated and underrepresented groups

In the debates surrounding educational equity, what it is and how it might be achieved, attention has been focused on the situation of individuals whose membership in a "designated group" — a group identified under employment equity legislation as having experienced unfair treatment — may have the effect of limiting their educational opportunities. Such groups (including women, visible minorities, people with disabilities, the economically disadvantaged and aboriginal peoples) are also "underrepresented" either overall or at higher levels in the workforce and educational institutions. The terms "designated" and "underrepresented" mean different things, but are often used interchangeably because designated groups are also typically underrepresented.

We recognize that a group may be "underrepresented" — as males are in the undergraduate

population of the University of Guelph — without being a designated group, and that underrepresentation does not in itself constitute inequity. But where a group is both designated and underrepresented either in our community as a whole or at its higher levels, we have cause for concern and reason to consider corrective action. Inequities at least of a systemic kind (that is, unintentional inequities) are typically reflected in a low level of representation of designated groups.

### D. Does educational equity refer specifically to equity for designated or underrepresented groups?

We recognize that individuals who are not members of a designated group may be or feel themselves to be deprived of educational equity, either as individuals or as members of a group that does not happen to have been designated.

Educational equity is, by definition, no more important for one human being than for another; fairness must mean fairness for all. The fact remains that action with respect to individuals within designated groups is needed to bring us closer to the ideal of educational equity for all.

Educational equity will therefore at present be understood at the University of Guelph as referring specifically to equity for designated groups, to whom focused attention should be paid. Philosophically, however, or by definition, educational equity will be understood as being equally important for all members of society and of our student population. Wherever an inequity is identified, and whenever it can reasonably be addressed and rectified, it should be.

### E. Two dimensions of educational equity

Efforts to achieve educational equity at the University of Guelph will include efforts to increase the representation of groups that are both designated and underrepresented in our student population as a whole or at its higher levels (e.g., within doctoral programs) or in a particular program.

Educational equity at the University of Guelph will be understood as referring also to the need for curricular and course content embracing a diversity of approaches and perspectives and reflecting a broad range of human experience in Canada and the world, and to the need for support services that take such diversity into account.

This additional dimension of educational equity speaks to the range of educational opportunities that are available to students once they have joined our community, as well as to the possible link between an individual's academic success and a learning environment that assigns obvious value to that individual's cultural history.

### F. Inclusiveness and diversity

Educational equity is addressed by offering what is often termed a more "inclusive" curriculum. Inclusiveness, however, is subject to limitations imposed by the resources available to us and by the requirements of the various disciplines. All knowledge and all approaches and perspectives cannot be accommodated formally within a single university's curriculum. Neither can all student interests be allowed to displace other learning experiences that are judged by faculty to be essential course components.

A more inclusive curriculum would include, but would not be limited to, a greater representation in the curriculum of the cultural experience of designated groups. Matters entirely unrelated to the cultural experience of these groups can also be addressed under the rubric of inclusiveness.

Another term often employed in this context is "diversity," which the University of Guelph will take as including a specific reference to designated groups, but not as constituting a synonym for them — either with respect to the range of students we hope to attract to the University of Guelph or with respect to the need for diversity of content and approach in our academic programs.

Despite the constraints addressed above, the University of Guelph is committed to increasing the diversity and inclusiveness of its curriculum. We recognize the importance of this goal both for members of designated groups and for the community as a whole.

### G. The mission statement: diversity, learner-centredness and academic freedom

The University's commitment to educational equity is signalled in our mission statement. We speak there of the University's commitment to "a

purposefully diverse community" and to placing "the learner at the centre of all it does."

We understand the reference to a diverse community as including and as specifically signalling, but not as being limited to, ethnic and cultural diversity (or the diversity achieved by the greater representation of designated groups). The term "purposefully diverse community" commits us to actions aimed at increasing the representation of designated and underrepresented groups in our student body. It also commits us to the proactive valuing of diversity of other kinds.

The choice of learner-centredness as a strategic direction for the University has a clear link to educational equity. Both ideals require us to attend to a diversity of learning needs and interests, some — but not all — of which may be related to membership in a designated group.

The mission statement asserts the fundamental importance of academic freedom and speaks of the need for an intellectually challenging environment. The University is thus responsible for creating an equitable learning environment that actively promotes freedom of inquiry and expression for all members of the University community, within a curricular and extracurricular context that is genuinely and consciously learner-centred.

Both academic rigor and our sense of community will be served as the University of Guelph accommodates the multiplicity of approaches and interests that the strategic direction of learner-centredness and the core principle of academic freedom should equally be seen to imply.

### H. Tensions to be addressed

Educational equity is concerned first with access to our programs and second with the delivery of a diverse and inclusive curriculum, as well as support services that are sensitive to diversity. To achieve greater equity, we must address each of these components. We must also address the potential tensions between (1) affirmative action and fairness to students who are not members of designated groups and (2) curricular reform in pursuit of educational equity and the fundamental value of academic freedom.

### ACCESS

The University of Guelph has committed itself to purposeful diversity with the aim of benefiting both those members of designated and underrepresented groups who might join our community and the University as a whole. To this end, the University will maintain an equitable admissions policy centred on recruitment and access.

The first component of an equitable admissions policy is the active recruitment of students from designated and underrepresented groups. Through liaison and recruitment programs such as the Six Nations Project and Project GO, the University will attempt to build strong links with diverse populations.

The second component of an equitable admissions policy is a financial aid program that is responsive to the needs of designated and underrepresented groups. One critical ingredient of an appropriately structured financial-aid program will be an increased number of needs-based awards, serving both economically disadvantaged students in general and the students from designated and underrepresented groups who require such assistance. In addition, some aid may be targeted specifically for members of designated and underrepresented groups and/or for particular populations (e.g., schools or geographical areas) in which such diversity is generally found.

The third possible component of an equitable admissions policy, involving a student's membership within a designated and underrepresented group as a factor in admissions decisions, is more controversial. Some members of our community would regard any consideration of this factor as producing an inequity with respect to applicants who are not members of a designated and underrepresented group; others would see some consideration of this factor as a means of offsetting past inequities and of producing greater equity overall.

The University of Guelph will not set admission quotas for members of designated and underrepresented groups; nor will it suppose that "blindness" to this factor is necessary to achieve equity in admissions decisions. For applicants whose secondary school marks are below the level established for automatic admission to a particular program

and above the minimum established as necessary for admission, other factors are currently being considered. The question is whether membership in a designated and underrepresented group should be formally identified as one of those factors.

Secondary school performance can be affected by a wide range of factors unrelated to ability; thus a consideration of grades alone would prevent us from admitting some very able students, including some from designated and underrepresented groups. Student profile forms address this general need by soliciting information about prospective undergraduates that is supplementary to measures of secondary school academic performance. In addition to helping us make better academic decisions, profile forms allow us to admit to the University qualified students whose particular talents and perspectives will enrich our community.

Profile forms are used to identify factors that might have led to somewhat lower marks and/or particular contributions the applicant might make to our community. Because membership in a designated and underrepresented group can have either or both of these effects, it seems a reasonable factor to consider in the more holistic or contextual process of assessment that the profile forms allow. Thus, where applicants have chosen to identify themselves on the profile forms as members of a designated group, admissions committees will appropriately take note of this fact.

Such information will not determine admissions decisions. Rather, it will be considered within the context of other available information to achieve fairness overall and to fulfil the University's commitment to the creation of a purposefully diverse community of scholars.

All students admitted to the University of Guelph directly from secondary school must have a record of accomplishment at a level that suggests the probability of success at university. The University sets minimum academic standards based on high school performance, and these standards will be adhered to for all applicants.

The University of Guelph recognizes that the probability of success for students from designated and underrepresented groups will be increased by the University's commitment to diversity and to the recognition and celebration of difference.

### LEARNING ENVIRONMENT

The University is committed to programs that acknowledge, accommodate and encourage a diversity of perspectives and ways of learning. This commitment is a logical and necessary consequence of our commitment to a purposefully diverse community. It should be reflected in the curriculum, the classroom and the academic and personal support systems available to our students.

The commitment to a more inclusive curriculum must be embodied at the levels both of individual faculty and existing groups concerned with the design and approval of programs and courses. Academic freedom, including the rights of faculty with respect to the design and conduct of individual courses, must always be respected. At the same time, groups such as departmental curriculum committees and program committees have an obligation to ensure that at their level, the ideal of a more inclusive curriculum is vigorously pursued.

Individual members of faculty design their courses both independently and within the context of programmatic goals. The degree to which the individual member of faculty determines the nature of a course and the degree to which course content is affected by understandings reached with the department or program committee will vary from one course to another. The accommodation of programmatic considerations does not and can not ever involve any infringement of academic freedom. It is the responsibility of faculty to address programmatic goals in their teaching, and it is the responsibility of department chairs to match courses and the faculty teaching them in a manner that supports those goals. As stated previously, the inclusiveness of curriculum is subject to limitations imposed by the expertise of faculty and the demands of the discipline.

All members of the University of Guelph community participate in the creation of our learning environment. We have a shared responsibility for making that environment lively and rich, challenging, respectful of difference and hospitable to all.



# ALL IN THE FAMILY

For Terry Maurice, his success at genealogy is all relative — so far, he's traced 7,000 of them

By Andrew Vowles

**T**ERRY MAURICE can't help laughing as he recalls the greeting he got from a distant cousin when he travelled to Ireland several years ago.

By then, Maurice, who last summer became CEO of the Guelph Food Technology Centre (GFTC), had spent about two decades researching his mother's family tree back to its roots in the Emerald Isle. And it had been more than 150 years since his great-great-grandfather Sweeney had embarked with his family for Canada. Maurice's Irish cousin took one look at this relative from afar and said: "You sure took your time getting back."

That cousin is just one of the more than 7,000 maternal relatives Maurice has managed to turn up since he began constructing his family tree during the early 1970s. Now collaborating with three Ontario cousins on a book about one branch of the family tree, he's still uncovering new information about his maternal forbears. And he's also begun looking into his father's roots, even going so far as to take language lessons so he can communicate with relatives in Ukraine.

"It becomes very much a passion; it's like being a detective," says Maurice, who started his project as a graduate student here at U of G.

Ironical or not, his cousin had a point. It was back in 1837 — with the potato famine yet to devastate Ireland — that Maurice's ancestors had packed up their possessions and sailed for a homestead in then Upper Canada. Three generations later, his ties to the homeland still bind, as evidenced during an interview in his office on St. Patrick's Day to the accompaniment of an Irish folk tune emanating from his computer's multimedia speakers.

"Making connections back to Ireland was a really important thing to me," he says — even when his enthusiasm wasn't exactly reciprocated by some of his distant relatives. He recalls visiting one Sweeney family in Ireland who swore up and down that he had the wrong farm. It was only after they'd confirmed his story with a 100-year-old neighbor that they grudgingly conceded his connection. "They thought I was out to get their land," Maurice laughs.

Then there were the two sides of the family whose farms backed on to one another and whose members, thanks to an age-old money feud, faced just as resolutely away from each other. When he found that neither side would volunteer information about themselves, Maurice hit on the obvious solution — he visited each side in turn to get them to talk about the others. "When you get too close to some people's lives, they don't like it too much," he says. "Families are a lot more dysfunctional than we like to admit."

He'd already learned that lesson here at home when he'd made inquiries about a family member called Barney Sweeney. An entire branch of the family had been ostracized after Barney — brother of Maurice's great-grandfather — had been murdered and unceremoniously dumped on his own front lawn one night during the 1860s. "He was a vicious fighter," says Maurice, recalling accounts of the crime in the *Orangeville Sun*. "One night he took someone on, and they did him in."

Putting together the familial connections — good or bad — is vital to Maurice, who, even as a youngster, was conscious of the sustaining force of family. Recalling with obvious fondness



Terry Maurice holds a musket that belonged to his great-grandfather, Daniel Sweeney (visible in the photograph over Maurice's shoulder), whose family emigrated from Ireland to Canada when Daniel was an infant in 1837.

PHOTO BY OLAN PALMER/SCENARIO IMAGING

his childhood visits to the former Sweeney farm in Caledon, Ont., he describes the "comfortable feeling of layers of generations" that blanketed the old homestead.

He started digging into his family's past after coming across some census information at the U of G Library during the early 1970s. "I was seen in my first semester as a very keen student, spending time in the library, none of it to do with food science."

Beginning his paper chase with his immediate family, Maurice then branched out using various resources — provincial archives, land grants, census records, church parish records, family history centres. Casting a wider net, he contacted family members by letter and phone to confirm information and to ask for memorabilia to add to his growing collection.

*"We're a lot more interrelated genetically than we'd like to admit to sometimes."*

One parcel from Ireland contained letters sent back home by a branch of the family that had followed the lure of fortune westward across North America. "Those are fascinating letters to read as they went across the United States in the Gold Rush days," says Maurice. He has also amassed a pictorial history containing dozens of photographs of his forebears. Some came to him in less than mint condition, allowing him to indulge another of his avocations — photo restoration.

"Back then you had to dig harder for information," he says of his early forays. Today, with everyone busy constructing fam-

ily trees, there are plenty of information tools at hand.

Using custom genealogy software, he maintains his complete family tree on his laptop computer, including one 1,500-member line that he's managed to trace back to the mid-1700s. Through the Internet, he can connect more easily and cheaply with far-flung relatives than through phone or mail. Posting his name recently on the World Wide Web yielded pictures and information from a previously unexplored family branch. Having learned just last month of yet another branch that had fled Ireland during the famine to wind up quarantined in Grosse Isle in the St. Lawrence River, he plans to visit there this summer. "It's a jigsaw puzzle with no borders."

Several years ago, he learned that he's related to Jim Wilson, Ontario's minister of energy, science and technology — a fact he shared with the politician during his visit last month to U of G. "It's surprising who you're related to," says Maurice. "We're a lot more interrelated genetically than we'd like to admit to sometimes."

His hobby has given him a deeper appreciation of the lives of his ancestors. "They have a lot of life stories and experiences worth listening to. Their lives were just as important, strangely, as our lives are now, and everything was just as busy as now."

It has also helped him understand himself, including casting light on behavioral traits that he believes bind family members just as tightly as do physical and medical characteristics, such as the heart murmur that several of his close relatives share. Maurice says he puts a familial stubborn streak to good use in practising a "values-driven" management style at the GFTC. He also believes his appreciation of individuals' uniqueness helps him empathize with work colleagues.

Not least, his research has proven a ready-made lesson in the history of 19th-century rural Ontario and the Irish diaspora. Dispelling one myth that casts Irish immigrants as penniless victims of the potato famine of the mid-1840s, he says most of those who came to Ontario earlier in the 19th century, including most of his own ancestors, paid for their passage and received land grants to establish farms. He plans to include some of that historical information along with genealogical data of one particular maternal line in the book to be published in a year or two.

Turning his attention to his paternal line, he's managed to paste several hundred names into the family tree and hopes to put his Ukrainian lessons to good use by travelling to Eastern Europe one day. By then, he might be visiting not as Terry Maurice but under the name he plans to adopt in a few years.

When his father's family left Ukraine in 1914, they unofficially changed their surname — first to FitzMaurice, then to Maurice — in an attempt to integrate more easily into their newly adopted country. Maurice plans to reclaim the original surname and change his first name as well. "Taras Sweeney Monach," he says, spelling it out in the air. "Terrence is a good Irish name, but Taras is a good Ukrainian name."

No need to change the stationery just yet, however. Maurice is waiting until his daughters — Gillian is completing her second year in environmental science at U of G, and Jocelyn has applied to Guelph for the fall — have both turned 21.

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# Bridging the Generation Gap

Senior volunteers bring unique perspective to FACS course on adult development and aging

**H**ELLEN WOODSIDE has brought two photos of her amaryllis plant to Monday's "Adult Development and Aging" seminar. She passes the pictures around, while her friend Ross Knechtel explains how amaryllis are raffled off each year at the Christmas party at the Ellridge, the seniors' home in Guelph where they both live.

Rather than an exposition on flora and fauna, Knechtel and Woodside are giving students half a century their junior some insight into what it's like to be old. They are two of five senior volunteers who come each week to the second-year family studies course, sharing their time, life stories and views as a future workforce committed to Canada's growing elder population understands a little of what they have not yet experienced.

Prof. Joan Norris, who introduced senior volunteers to the curriculum a year ago, says the course is

designed to put aging in context for gerontology and child studies students (as well as students from other disciplines) and, along the way, dispel some poor images.

"I wanted our students to understand normal aging, not just the negative stereotypes we see and hear in the media," says Norris. "Becoming old does not invariably mean Alzheimer's, poverty and loneliness; the majority of seniors lead fulfilling, happy lives. We needed to get that message out."

Teaching assistant Sbaron Livingstone agrees: "The senior volunteers have such great life experiences that it helps the students make some links and helps them deal with some ageist stereotypes."

The senior volunteers find the gains of the course a two-way street. "I think we get more out of it than the students do," says Woodside, who's been with the program since it started. We enjoy hearing young

people talk about old age. We're with seniors all the time, and our grandchildren are scattered widely. This gives us a chance to talk with younger people."

Fourth-year psychology student Karen Willox has found that the course is not only educational, but it also offers a personal bonus. "I don't have any living grandparents myself, so I get a sense of older people's life experiences, their perspective on issues. Also, Ross and Helen are successful agers, and the key to that seems to be maintaining strong relationships."

In an era of increased mobility, some cross-generational ties within society have been broken, says Norris.

"I find that many students, in this 'Adult Development and Aging' class and elsewhere, have not had extensive contact with older people, so this was another force in getting this program under way, to give students

the opportunity to hear an older person's perspective in his or her own voice."

Students and volunteers come to class prepared to discuss the week's readings, with the senior volunteers placing events in historical and personal context. What has prompted the discussion about the amaryllis is Mary Ward Brown's short story of the same name. The story examines a once prominent judge and how he copes with retirement. In capturing the central issues of retirement, the story is "right on," says Woodside.

The class is discussion-driven to evoke central issues of aging. From this, the two volunteers recount the significant events in their own lives, such as the transition from work to retirement, being in Europe as that continent descended into the Second World War, living through the Cold War in the 1950s, losing loved ones and bridging the generation gap.

Students and faculty are keen to

point out that the learning experience could not be what it is without the special qualities of Knechtel and Woodside. Says Livingstone: "We have very open communication, and students work hard to make links. The bonus — and the reason it works so well — is having two such open, giving people as Ross and Helen."

"Woodside" is, of course, a familiar name on the U of G campus. The late professor Willson Woodside, Helen's husband, taught in the department of political studies from 1966 to 1974, following a distinguished career as a journalist and as executive director of the United Nations Association of Canada. He died in 1991. Helen's son, Ken, is a professor in the Department of Political Science, and her daughter-in-law, Mary, is a professor in the School of Fine Art and Music.

BY ALEXANDER WOOLEY

## The Call of the Web

Interactive CBS Web site aims to promote awareness of Canada's aquatic resources among secondary school students

**N**O, THAT SOUND you hear emanating from the chair's office in the Department of Zoology is not Prof. Paul Hebert mimicking the signature call of one of Canada's best-loved waterfowl species. The evocative loon call is actually a recording on a World Wide Web site that Hebert and his colleagues are developing to provide much-needed information to secondary students about the web of life.

"I'm disheartened with the quality of science available to high school students across Canada," says Hebert, who hopes to entice young people to visit what he says will eventually be the largest Web site about Canadian aquatic habitats. The recipient of about \$50,000 in federal grants under Industry Canada's SchoolNet program since last summer, he has just applied for a third instalment to further develop the site.



Hebert established the Web site last year using information about birds in the Great Lakes basin, much of it culled from an instructional CD-ROM that had been produced as part of the department's series of interactive CD-ROMs on the environment and ecology.

Today, students visiting on their own or as part of a school project can view some 3,000 pages of information on about 150 species of birds. They can listen to bird calls, take a

bird identification test, view the roughly 1,500 illustrations and photographs, read detailed text, even go on a virtual bird-watching expedition.

Users can also learn about Canada's aquatic habitats by scanning information that's been added to the site since Hebert received a second grant late last year. The funding goes entirely to salaries for four recent College of Biological Science gradu-

ates who are doing most of the legwork in compiling information for the Web site.

With the site's planned thousands of images of diverse lakes, rivers, oceans and wetlands and their associated wildlife species, "we believe it will be the largest water-focused site on the World Wide Web," says Hebert.

Most of the site's information will come from the department's 26 faculty members and 100 graduate students, along with images and text provided by external organizations such as Parks Canada.

Although he has no way to track usage of the site, Hebert says he's received favorable comments from high school students through e-mail. SchoolNet itself plans to include the site in its Time Capsule 2000 project. And the site was on display last fall at the Museum of Science and Technology in Ottawa.

"The idea is to let students see aquatic habitats of importance to Canadians," says Hebert. "Canada has five million lakes, more than any other country on the planet. If there's one thing we should know about, it's water."

As with the series of interactive CD-ROMs that his department has produced on aspects of biology and ecology, Hebert sees this project as a way to improve the quality of science materials available to high school students in Canada.

"I sense that universities have a special responsibility to make use of their expertise to create educational materials that have an impact on the school system vertically from the primary to the tertiary levels."

The Web address for Canada's Aquatic Environments is [www.aquatic.uoguelph.ca](http://www.aquatic.uoguelph.ca).

BY ANDREW VOWLES

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Furnished four-bedroom home, University area, fenced yard, two baths, appliances, lease and references, available Aug. 1, 1998, to Aug. 1, 1999, suitable for visiting professor with family, \$1,300 a month plus utilities, Ext. 4934 or 836-6264.

Large basement room for single person in townhouse on Janefield Avenue, three-piece bath, broadloom, fireplace, shared laundry and kitchen, on bus route, walk to campus and mall, \$350 a month inclusive, 824-1397.

Furnished room for responsible non-smoker in private home, parking, cooking privileges, leave message at 766-9955.

Large one-bedroom attic loft apartment in elegant Victorian home, non-smokers, no pets, suitable for single person or couple, mature individuals only, available May 1, \$650 inclusive, 837-1717.

Large bedroom for summer sublet with fall option, 15-minute walk to campus, on bus route, close to mall and shopping, share townhouse with two others, leave message for Karen or Margy at 821-6057.

Furnished three-bedroom house with finished basement, attached garage, central air and vac, dishwasher, fenced mature yard, 10-minute walk to campus, available August 1998 to July 1999, \$1,300 a month plus utilities, Ext. 8946 or send e-mail to live@css.uoguelph.ca.

Furnished four-bedroom house with finished basement, close to campus, fully equipped, mature garden, available June 1, \$1,475 a month, Mike, Ext. 2169 or send e-mail to mike@css.uoguelph.ca.

Three-bedroom townhouse condo in Blue Mountain/Collingwood, fully equipped, three baths, two fireplaces, Jacuzzi, central air, heated pool, hot tub, tennis courts and sauna at rec centre, view of mountain, beach within minutes, \$750 a week, 837-1379.

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Robert Bateman prints: *Orca Procession*, *Midnight Black Wolf*, *Arctic Wolf*, 821-3158 after 5 p.m. or leave message.

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Estate lot in Fox Run Estates, Aberfoyle area, one acre with 164-foot frontage, 763-7569.

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Gold S-shaped pendant, with diamond and two amethysts, sentimental value, reward, 836-3869.

## WANTED

Quiet, non-smoking OVC graduate student seeks room for one night per week, plus occasional weekend during on-call duty, starting May 1, Stephen, call collect to 519-284-4024 or send e-mail to sleblanc@agris-mart.on.ca.

Professional couple looking for clean accommodation close to campus, laundry, parking, Lalit, Ext. 3707, or Ruth, 823-9782.

Three-bedroom rural home or farm, preferably in the south end or Puslinch area, for responsible family, non-smokers, references, one-year lease, possession in June or July, 763-4344 evenings or send e-mail to jlevers@agri-food.com.

Person to share large old stone house on one acre in downtown Guelph, laundry, parking, storage, large kitchen and living areas, non-smoker, no dogs, available May 1, \$400 a month plus utilities, Meg, Ext. 4786 or 822-2430.

Single room for four months, September to December 1998, preferably with non-smokers, laundry facilities, Andrea, 826-6904.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgram@exec.admin.uoguelph.ca. For more information, call Ext. 6581.

## GRAD NEWS

The final examination of Ross Ridsale, an M.Sc. candidate in the Department of Molecular Biology and Genetics, is April 13 at 9 a.m. in Axelrod 222. The thesis is "Structures of Upstream Binding Factor, Myelin Basic Protein and Surfactant Protein A by Electron Microscopy and Molecular Modelling." The adviser is Prof. George Harauz.

The final examination of MLA candidate Fumiko Nakao, School of Landscape Architecture, is April 15 at 1 p.m. in Landscape Architecture 202. The thesis is "Public Participation in Bioregional Planning." The adviser is Prof. Robert Brown.

The final examination of Xia Man, an M.Sc. candidate in the Department of Food Science, is April 16 at 9:30 a.m. in the Pearson Room of GFTC. The thesis is "An Affinity

Chromatography Procedure to Remove Cholesterol from Butter Oil, Lard and Tallow." The adviser is Prof. Yukio Kakuda.

The final examination of PhD candidate Pauzia Siddiq, Molecular Biology and Genetics, is April 20 at 1 p.m. in Axelrod 222. The thesis is "Effect of Wheat-Streak-Mosaic-Virus Infection on the Activity of Enzymes Degrading Starch and Cell Wall Components in Wheat." The adviser is Prof. Annette Nassuth.

The final examination of Lyndon Badcoe, a D.V.Sc. candidate in the Department of Pathobiology, is April 20 at 9:30 a.m. in Pathobiology 101. The thesis is "Biochemical, Pathological and Clinical Aspects of Dilated Cardiomyopathy in Doberman Pinscher Dogs." The adviser is Prof. Jill McCutcheon.

The final examination of Reem Barakat, a PhD candidate in the Department of Food Science, is April 22 at 9:30 a.m. in 3301 Graham Hall. The thesis is "Shelf Life, Safety and Microbial Ecology of a Cooked, Modified-Atmosphere Packaged, Refrigerated Poultry Product." The advisers are Profs. Mansel Griffiths and Linda Harris.

The final examination of PhD candidate Andre-Denis Girard Wright, Zoology, is April 23 at 9 a.m. in Axelrod 265A. The thesis is "Molecular Phylogeny of the Endosymbiotic Ciliates (Litostomatea: Trichostomata) of Vertebrate Animals Inferred from 18S rRNA Gene Sequences." The adviser is Prof. Denis Lynn.

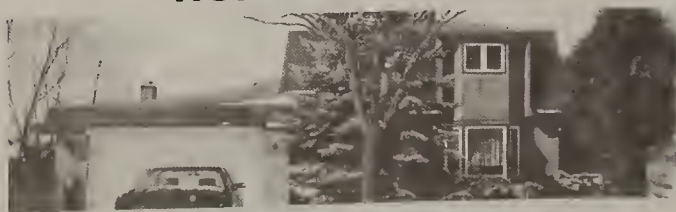
The final examination of Steven Robinson, a PhD candidate in the

Department of Philosophy, is April 23 at 1 p.m. in MacKinnon 132. The thesis is "Drama Dialogue and Dialectic: Dionysos and the Dionysiac in Plato's Symposium." The adviser is Prof. Ken Dorter.

The final examination of Seth Asare, a PhD candidate in the School of Engineering, is April 24 at 9 a.m. in Thombrough 106. The thesis is "Investigation of Soil Macroporosity and Macropore Flow in Agricultural Soils Using Volume CT Scanner." The advisers are Profs. Ramesh Rudra and Trevor Dickinson.

The final examination of D.V.Sc. candidate Elemir Simko, Pathobiology, is April 28 at 9:30 a.m. in Pathobiology 101. The thesis is "Acute Phase Response to Inflammation in Salmonids." The advisers are Profs. Tony Hayes and Brian Wilcock.

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# EVENTS

## ARBORETUM

*Two and Two Make Sex*, a comedy written by Richard Harris and Leslie Darbon and directed by John Snowden, runs at Theatre in the Trees Saturdays until April 25. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45 at Ext. 4110.

## NOTICES

The Rotary Club of Guelph invites applications for its 1999 Academic-Year Ambassadorial Scholarship for study in another country. Value of the scholarship is \$22,000. Candidates must have completed two years of university study or appropriate professional experience before the scholarship begins. Application deadline is June 30. For an application form, call Rosemary Clark at 822-4687 or fax to 822-2276.

Students graduating from the bachelor of landscape architecture program present an exhibit of their final design thesis work April 15 to 20 at Fashion Fine Arts Gallery, 128 Wyndham St. N. A reception will be held April 17 at 7 p.m. at the gallery. On April 16, MLA students will present their thesis work in progress from 1 to 4 p.m. in the foyer of the School of Landscape Architecture.

The Guelph Food Technology Centre is offering a wide range of technical training courses for the food industry in May. Courses scheduled for Guelph are "Thermal Processing: Principles and Practices in Food Preservation (April 28 to May 8), "Hazard Analysis and Development of Your HACCP Plan" (April 29 to May 1), "HACCP: Advanced Scientific Validation and Verification" (May 5 and 6), "HACCP: Train the

Trainer" (May 7 and 8), "Modified Atmosphere Packaging and Shelf-Life Extension" (May 21), "Microbiology III: Pathogens" (May 26 to 28), "ServSafe® for Food Industry Sales and Marketing and the Retail Food-Service Sector (May 27 to 29) and "Optimizing R&D Tax Credit Claims" (May 28). For more information, call 767-5028.

The U of G Child-Care and Learning Centre will hold its annual garage sale April 25 from 9 a.m. to 3 p.m. in the centre's parking lot. The centre is accepting donations of articles such as toys, clothing, books, magazines, small appliances, furniture, kitchenware and records until April 23.

The Canadian International Development Agency seeks applications for its 1998/99 Awards for Canadians. The program is offering awards of up to \$15,000 for three- to 12-month projects in two categories — master's-level students who wish to do field research in developing countries, and individuals with professional experience who wish to undertake a volunteer research or work project in a developing country. Application deadline is April 30. For more information, call the Canadian awards division of the Canadian Bureau for International Education at 613-237-4820, Ext. 234, fax to 613-237-1073 or send e-mail to fLepage@cbie.ca.

The Professional Staff Association (PSA) executive is hosting a social April 15 from 11:30 a.m. to 1:30 p.m. at the Whippettree. All PSA members are welcome to drop in.

An end-of-semester dance will be held April 17 beginning at 8 p.m. in the Grad Lounge on UC Level 5.

## SEMINARS

The Department of Economics presents Ray Rees of the University of Munich discussing "How Should Couples Be Taxed?" April 13. On April 14, Rees focuses on "Product Market Competition and Access Price Regulation." Both lectures are from 3:30 to 5 p.m. in MacKinnon 237.

Leon Carl and Tara Frezza are guest speakers April 14 in the Axelrod Institute of Ichthyology's "Loaves and Fishes" seminar series. Their topic is "Electronic Surveillance." On April 21, Terry Quinney of the Ontario Federation of Anglers and Hunters focuses on "Fisheries Management and Provincial Conservation Issues." The talks begin at 12:30 p.m. in Axelrod 168.

The Department of Biomedical Sciences presents graduate student seminars Fridays at 12:30 p.m. in OVC 1642. Next up in the series is Jen Robertson discussing "Distribution of the Epidermal Growth Factor Receptor in Developing Hair Follicles of C57 and 'Downy' Mice" April 17. On April 24, Sue Walker explains "Reproductive Endocrinology of the Red Wolf."

The Canadian Wildflower Society meets April 15 at 7:30 p.m. at the Arboretum Centre. Guest speaker John Ambrose, botanical curator at the Metro Toronto Zoo, will discuss "Creating and Restoring Habitat at the Toronto Zoo." Everyone is welcome.

Wyndham House, which provides a safe and stable co-operative living

environment for young women aged 16 to 21, will hold its annual fundraising tag day April 18 from 8 a.m. to 1 p.m. For more information, call 763-8040.

The Royal City Calligraphy Guild meets April 14 at 7:30 p.m. at the Evergreen Centre. Amanda Ng will demonstrate paper folding and the BONE alphabet.

The Arkell Schoolhouse Gallery presents the Fisher String Quartet performing works by Haydn, Mozart and Beethoven April 18 at 8 p.m. Tickets are \$15. Violinist Jacques Israelievitch performs May 1 at 8 p.m. Tickets are \$20. For reservations, call 763-7528.

Guelph Arts Council is hosting an "Arts Schmoozefest," a networking and social occasion for the local arts community, April 14 from 5 to 7 p.m. at the Diana Restaurant. Admission is free.

The Guelph Contemporary Dance Festival runs April 17 to 19. Scheduled events include a mainstage series Friday at 8 p.m., Saturday at 7 and 9:30 p.m. and Sunday at 2:30 p.m. at the Inner Stage (tickets are \$12 single, \$20 per program), talks following the mainstage performances and free performances in front of the Guelph Farmers' Market Saturday and Sunday at noon. A children's series runs Saturday at 4:30 p.m. and Sunday at 1 p.m. at the Inner Stage (tickets are \$5 and \$1).

Guelph Museums and the Royal City Quilters Guild present "Material Pleasures," an exhibit of wall hangings and quilts crafted by members of the guild, April 24 to June 21 at Guelph Civic Museum. The next

meeting of the guild is April 14 at 7:30 p.m. at Westwood United Church.

The Guelph Youth Music Centre will hold a 30-hour play-a-thon and raffle April 17 and 18. It begins Saturday at 3:30 p.m. at the Reorganized Church of the Latter Day Saints, 8 Mitchell St., and moves Sunday at 9 a.m. to the Stone Road Mall, where it will end with a raffle draw at 9 p.m. A wide sampling of Guelph's music groups will perform during the 30 hours. For more information, call Sally Gross at 837-3143.

The Multiple Sclerosis Society support group meets April 21 at 7:30 p.m. at the GSPD building, 238 Willow Rd. For more information, call Jolyne Neil at 821-6309. The MS Society needs volunteers for the Guelph Zehrs Super Cities Walk April 19 (call Patricia Brown at 836-8907) and the annual carnation campaign May 9 (call Virginia Bodendistel at 763-3084).

Centre Wellington Children's Drama Club presents *The Eh! Files* April 18 at 2 and 7 p.m. For tickets, call the Theatre on the Grand in Ferguson at 787-1981. The club is now accepting résumés for the position of director for the 1998/99 season. For more information, call Lena Nudds at 843-3470.

The Optimist Club of Guelph is holding its second annual bike rodeo and used bicycle sale April 18 at 89 Beechwood Ave. The rodeo for children aged five to 14 begins at 10:30 a.m. The sale runs from 10 a.m. to noon. Donated and consigned bikes and parts can be dropped off April 17 from 6:30 to 8 p.m. For more information, call 824-7694.

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## HEALTHY AS A...

Equine research is the theme of the spring issue of *Research* magazine, which is produced in the Office of Research by Owen Roberts and members of the Students Promoting Awareness of Research Knowledge program. Prof. Laurent Viel, Clinical Studies, served as executive editor of the issue and was featured in the cover story on the Equine AeroMask, which he developed with Prof. David Tesarowski to treat heaves in horses. At left, Viel and technician Sean Marack demonstrate use of the mask. Viel is currently organizing a world conference on the respiratory health of horses, to be held at U of G in August.

PHOTO BY MARTIN SCHWALBE

## Survey Explores Issues of Sexual Orientation

*Project Vision addresses needs and concerns of lesbians, gay men and bisexual and transgendered persons*

**A** GAY STUDENT is harassed by other male students, but is unable to lodge a complaint because his harassers cannot be identified.

After the Women's Resource Centre advertises a self-defence course geared to lesbians, the office receives harassing phone calls from men and women.

It's incidents like these — documented at U of G during the past five years — that a new campus project is partly meant to avert. By addressing the needs and concerns of lesbians, gay men and bisexual and transgendered (LGBT) persons, Project Vision aims to ensure that these people can work and learn at the University free from harassment or unfair treatment based on sexual orientation.

During the two-phase project, which began last fall, organizers will conduct research, raise community awareness of pertinent issues and suggest ways to improve the campus climate through education and training and policy changes.

"We're hoping Project Vision will result in changes that will be permanent," says project research consultant Phil Robinson. "It will help people understand why sexual orientation is an issue on campus and an issue that needs to be looked at and taken seriously."

The project is being undertaken by the Human Rights and Equity (HRE) Office under the guidance of

an advisory group consisting of faculty, staff and students.

As part of the project's first phase, the HRE Office distributed a community survey to almost 3,000 randomly selected faculty, staff and students. Another 100 forms were sent directly to interested lesbians, gay men and bisexual and transgendered persons. To date, the response rate is about 25 per cent.

Through the survey and a concurrent series of focus groups being held across campus, project organiz-

ers hope to document factors affecting the accessibility of services for people on the basis of sexual orientation, identify ways to create a more equitable environment, outline developments already under way here and at other universities, and identify resources for developing education and training programs.

The HRE Office plans to release a discussion paper containing the findings of the survey and the focus groups by this fall.

The project was organized after the President's Advisory Committee on Sexual and Gender Harassment called in 1995 for a task force to examine issues affecting the LGBT community.

"The University created Project Vision as a way to study and document the experience of the lesbian, gay, bisexual and transgendered community," says Jodie McConnell, U of G's human rights consultant and the project's co-ordinator.

Robinson, who recently com-

pleted a literature review on the topic at other universities and colleges, says it's estimated that LGBT persons make up about 10 per cent of any community. But only a fraction of that group acknowledges its sexual orientation openly, out of fear of persecution or ridicule, he says.

According to a survey of the LGBT community at Pennsylvania State University, three out of four respondents had experienced verbal

See REPORT on page 2

## Research Assistantships Spark Interest

*University will fund as many jobs for undergraduates as the program budget will allow*

**M**EMBERS OF U of G's Enrolment Management Committee (EMC) had expected that their new financial aid program designed to give undergraduates a taste of academic research would spark some interest around campus. But they hadn't anticipated that professors, staff and students would be so quick to sign up for the new undergraduate research assistantships (URA), which will give students research-related jobs at U of G for up to 16 weeks.

Only two weeks after the new program received approval as part of

a package of new financial aid measures contained in the University's 1998/99 preliminary operating budget, even EMC chair Prof. Alastair Summerlee, dean of graduate studies, is feeling overwhelmed by the number and scope of jobs proposed from across campus.

"We were perhaps expecting 100 if we were lucky," he says. "We've had 250, and they're still coming in. That's an unprecedented response from faculty."

Summerlee notes that few other universities in Ontario have introduced a similar program to provide

jobs from mandated tuition reinvestment. His group had planned to fund up to 75 projects this year; the University will now fund as many jobs as the budget will allow.

Summerlee says that, besides providing financial support to students, one of the primary goals of the program is to "link undergraduates with the University research enterprise." He says that inherent connection between research and learning is evident in project proposals submitted from across the University.

"They have to be meaningful research projects," he says. This in-

cludes initiatives that will enhance a student's academic and career potential, such as data collection and analysis, lab specimen preparation, literature searches, experimental systems design and report preparation.

U of G Library administrators wasted little time in submitting a proposal for a student to compile information for use in developing new services for people studying through distance education or open learning. Janet Kaufman, manager of information literacy and open learning

See STUDENTS on page 2



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## Report to Recommend Training Ideas

Continued from page 1

insults and 94 per cent had not reported at least one homophobic incident. A similar report at Yale University found that one-quarter of respondents had been threatened physically and that 92 per cent anticipated future victimization.

"Gay and lesbian people know that to survive you need to be invisible," says Robinson. "I hope that for that 10 per cent, we can create an environment that allows people to be open about their lives."

His literature review, which is being used as background information for the project, shows that people's performance at school or work can suffer if they feel pressured to keep a vital part of their lives hidden. "Universities have gained or lost really great research scholars because they were or weren't positive around gay or lesbian issues," he says.

At the same time, Robinson says Project Vision "isn't about pressuring faculty, staff and students to 'come out.' It's about sharing ways for creating a climate that makes it safe for people to come out."

The research report will highlight current practices and developments, and recommend ideas for education and training and policy initiatives that might be implemented during the second phase of the project. "When the report comes out, people will have a better idea what to do," says McConnell.

"We're not talking about special rights," she adds, noting that the project has been endorsed by president Mordechai Rozanski and that human rights legislation and current University policies already prohibit discrimination and harassment on the grounds of sexual orientation. "By providing human rights to gays and lesbians, it's not at the expense of other people," she says. "We're talking about ensuring that members of a group have equal rights."

U of G has already taken steps to improve the campus climate for LGBT members, including providing specialized training to campus security personnel and establishing a support group through the Counseling and Student Resource Centre.

As part of the current project, the HRE Office produced an information brochure last fall called *What Do You See?* It examines homophobia and heterosexism and suggests ways to counter discrimination and harassment based on sexual orientation.

Besides McConnell and Robinson, members of the project advisory group are Fernande Allen, HRE Office; Robin Begin, Security Services; Sabina Chatterjee, an external community member; student Rosa Crea; Lia De Pauw, HRE Office; Mahejabeen Ebrahim, HRE Office; Darlene Frampton, Communications and Public Affairs; Karen Geldart, Student Housing Services; Brad Hutton, AIDS Committee of Guelph and Wellington County; student Robert Perry; Prof. Larry Peterson, Botany; Marlene Pfaff, Wellness Centre; student Cameron Ray; Rev. Lucy Reid, Campus Ministry; student Barry Townshend; Prof. Rick Yada, Food Science; and student Michelle Zehr.

BY ANDREW VOWLES

## Students Must Show Financial Need

Continued from page 1

for the library, says she wouldn't have been able to fund a dedicated position without the new program.

"I think it's a terrific program," she says. "It gives students an opportunity to see first-hand what faculty and librarians are doing in terms of research and, ultimately, their education. It's an opportunity to make that link for undergraduate students, who probably have fewer opportunities to see those links."

Under another job posted by Prof. Daniel Fischlin, School of Literatures and Performance Studies in English, a student will track down a range of information — from bibliographical material to copyright permissions — for three books Fischlin is writing. He views the new program as an ideal "apprenticeship" for his students, not to mention an opportunity for him to get a jump on his projects.

"It's an incredible opportunity," says English student Jennifer Ailles, who anticipates that her summer job with Fischlin will provide research and book publishing skills that will prove useful in pursuing a PhD.

The URA program is funded from the mandated 30 per cent of the University's predicted enrolment increase and tuition increase that must be set aside under provincial law for students with demonstrated financial need. U of G will have to show that it has awarded this money to the most needy students.

If faculty and staff were quick off the mark to sign up for the program, students didn't need much prodding either. Even before an advertisement about the new program appeared in a recent issue of the *Ontario*, Summerlee had fielded numerous calls from students inquiring about the program and their eligibility. As

of the middle of April, 230 students had applied, with about two-thirds qualifying for financial need.

Besides demonstrating financial need, students must be planning to return to undergraduate studies following their URA work term to qualify. The University will pay for students' salaries and benefits for at least eight weeks and up to 16. Hourly rates will vary depending on the student's semester level and related work experience. Under the conditions of tuition reinvestment, students must be Canadian citizens or permanent residents and must have been living in Ontario for a full year before entering U of G.

Although most of the jobs will run throughout the summer, they may be provided at any time during the year, meaning students can use their assistantship as a work term for a co-op program or even for academic credit.

Summerlee says the University regards this inaugural program as a pilot project and will probably offer it in future years, depending on its success. Administrators will review the inaugural program's pros and cons, and the Ministry of Education and Training will audit it for compliance with tuition reinvestment rules. Students will be asked to evaluate the program themselves, and faculty members will have to submit brief reports on their students' performance.

Unlike the new URAs, work/study programs at Guelph fund only part-time positions for up to 10 hours a week. A former summer studentship program that saw the Natural Sciences and Engineering Research Council provide about \$150,000 a year for jobs for about 30 students ended when funding dried

up about three years ago.

With that earlier successful model in mind, and following discussions with colleagues such as Prof. Larry Milligan, vice-president (research), on how to expose more undergraduates to University scholarship, Summerlee and fellow EMC members included the program in their budget recommendations last month.

Jobs are posted in pertinent departments and units as well as in Career Services and Student Financial Services. The deadline to apply for summer assistantships is May 1.

BY ANDREW VOWLES

## @ GUELPH

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**ASSOCIATE DEAN  
SOUGHT FOR OAC**

Applications and nominations are invited for the position of associate dean of OAC. The position is available July 1 and is open to all tenured faculty. Candidates should have a substantive academic record of achievement along with a familiarity with the administrative and managerial functions of the college and the University.

The position will represent a 50- to 60-per-cent commitment of the individual's time. Applications should be submitted to OAC dean Rob McLaughlin by May 1.

**CONFERENCE DRAWS  
HIGH SCHOOL STUDENTS**

Guelph Interchange, U of G's annual conference on global and national issues for senior secondary school students, is slated for May 1. Offered through Admission Services, the day gives participants an opportunity to experience the learning environment of a university. Forty-two sessions cover a wide variety of contemporary issues and will be presented by faculty, staff and guests from many academic disciplines. Topics include "From Mao to McDonald's in Less Than One Generation," "Hello Dolly: The Very Real Technology of Cloning and Its Implications" and "Celebrities in Our Culture." Last year, 1,200 students from across Ontario attended the conference.

**PLAYWRIGHT TO SPEAK**

Author and playwright Dan Needles, known for his popular Wingfield Farms series of plays, will be guest speaker at the spring luncheon and annual general meeting of Alumni-in-Action, U of G's program for senior alumni, May 13 at the Arboretum Centre. A reception begins at 11:30 a.m., followed by lunch at noon. Cost is \$14 per person. Everyone is welcome to attend. Registration deadline is May 7. For more information, call June O'Grady at Ext. 6657.

**MCC CANNING BEGINS**

The Mennonite Central Committee (MCC) has returned to campus with its mobile meat canner to process 50,000 pounds of beef for use in overseas relief operations. MCC volunteers have set up shop in P20 just off Smith Lane and will begin canning April 27. About 600 volunteers will be involved in the process, which will run daily from 6 a.m. to 10 p.m. for five days. The meat will be distributed around the world.

**HENRY ACTING DEAN**

Prof. Bryan Henry, Chemistry and Biochemistry, is serving as acting dean of CPES until May 31 while Prof. Bob McCrindle is on leave.

# Facilities Renewal Program Funds \$1.5 Million in Renovations, Repairs

*Priority list includes classroom upgrades, safety and accessibility programs*

**T**HE U OF G CAMPUS will see \$1.5-million worth of renovations and repair projects carried out this year under the 1998/99 facilities renewal program.

Projects approved last month include classroom upgrading of War Memorial Hall, classroom renewal in Graham Hall and the J.D. MacLachlan Building, library renovations and construction of a central storage vault for hazardous waste and solvents produced by biological and physical sciences departments.

Also on the priority project list this year are roof replacements, road repairs, and safety and accessibility programs. ("Priority" projects are those related to health and safety, work needed to meet building codes and projects that address academic needs.)

Funding for most of the work will come from a \$1.035-million facilities renewal grant from the Ministry of Education and Training (MET). The balance will come from three main areas on campus, including \$340,000 from Physical Resources' operating budget, \$50,000 from washroom ad-

vertising revenue, and \$100,000 from parking services that will cover road repairs.

Deans and directors had requested a total of \$19-million worth of projects for this year. Requests for Priority 1 projects alone totalled \$5.7 million.

"Perhaps the most vivid example of our problem is roofing maintenance," says Garry Round, executive director, facilities and hospitality services. "We require \$303,000 of work to properly repair roofs that are leaking. We are allocating \$200,000. For the balance of the roofs, we will carry out patching jobs, which means the roofs will continue to deteriorate even more."

In a similar vein, the University has been able to allocate only \$100,000 this year for road repairs. Engineering studies show that six times that amount will be required over the next three years, including "critical" repairs (those that should be carried out this year) worth a total of \$250,000.

Deans and directors submitted their priority projects for 1998/99 to

Physical Resources late last year. The proposals were reviewed and priority-ranked by Physical Resources engineering staff; Nancy Sullivan, vice-president (finance and administration); and Prof. Iain Campbell, provost and vice-president (academic). The ranked list was reviewed by the Vice-President's Academic Council and the University's Executive Group.

Several projects planned for this year were recommended by the Committee on Campus Accessibility, following an accessibility audit of the campus that was carried out by a student with a disability.

Based on recommendations by U of G's personal safety advisory committee, lighting and security will be improved in several locations, including in front of Peter Clark Hall and around the nearby washrooms in the University Centre.

These projects will be funded through \$50,000 in washroom advertising revenue, as well as money from the parking budget and the MET women's campus safety grant.

## Charting a Course for the Future

*CPES offers sought-after computer skills for non-CIS students*

**M**ANY OF US KNOW how to format a floppy disk, save a word-processing file and open our e-mail, but how many of us can truly say we are "computer literate"? How many know how to build and manage a database, construct a Web page or put together a multimedia presentation?

It's these skills that are going to separate the masses of "microserfs" from the true "cyber citizens" in the information age.

Fortunately for those U of G students keen to equip themselves for the future, the Department of Computing and Information Science (CIS) now offers a course that teaches more advanced and sought-after computer skills to students who might not otherwise have a chance to learn them.

"Modern Applications Development," a second-year course open to students from any non-CIS program, is designed to teach non-computer science majors popular cutting-edge skills without the students having to enrol in specialized computer programming streams. Participants need only one introductory computer course under their belt.

Still largely a work in progress, "Modern Applications Development" was initially offered as a pilot project last fall to 28 students. Did it work? Course creators Sean Scott and Prof. Al Dyer think so.

"This was an 'experimental' offering to see how students would benefit from such a course and to iron out any problems that might arise from such a current workload,"

says Scott, who teaches the course. "The experiment succeeded. Student feedback was very positive."

The course is set to run again this spring and will be open to between 30 and 40 students.

What does the course teach specifically? The outline reads like a roster of the most sought-after applications. Web page development and online information management, development applications, multimedia fundamentals, statistical analysis and the basics of local-area networking, as well as in-depth coverage of more familiar office and productivity computing.

Because of the rapidly and perpetually changing nature of the computer industry, keeping the course current — not just from year to year, but from month to month — can be difficult. In fact, much of the material taught during the course's initial offering last fall will be revised for the summer semester because it's now considered "too old" by industry standards. "From September to this summer, we've rewritten half to three-quarters of the class material," says Scott.

Creating new content is just one of the challenges of the course. Keeping up with the latest trends in technology used in day-to-day laboratory work can be just as taxing, but it's necessary to ensure student interest in the course, he says.

Scott and Dyer admit that continually upgrading the computers will be a challenge as the course matures. "I saw the same system I bought for my home for several thousand dollars less than two years

ago in the newspaper just the other day for about \$1,400," says Scott. "So you can see some of the pressures we will be facing to stay current."

The race to keep pace with the endless flood of upgrades and new releases of popular software packages is also going to be tough, says Dyer.

"It is a resource-based class, and we will continue to need state-of-the-art equipment and software to make it work. Technology is changing at a very rapid pace, and we are just going to have to keep up with it."

With such an emphasis on hands-on exposure to technology, it would be easy to classify "Modern Applications Development" as an "applied" course, but according to Scott and Dyer, that type of mindset just doesn't compute.

"I think all knowledge is practical," says Scott. "We do teach more than just 'skills' here, though. There is an emphasis on the concepts behind this technology and its history."

CIS chair Jim Linders echoes these sentiments. Dyer and Scott are being careful not to just teach "skills," says Linders. "They want to teach the students to ask: 'What's behind the technology?' and 'Where is this all going?'"

Both instructors and their chair are excited about the future of the course. Dyer and Scott are optimistic that as word spreads, more and more students will be signing up.

"We are expecting a high demand," says Dyer. "If the numbers warrant it, we'd even like to expand the course to 100 or 200 students."

BY NATHAN MALLET

## PEOPLE

**HIRE DIRECTOR LEADS  
RESTRUCTURING EFFORT**

Ralph Agard, director of the Human Rights and Equity Office, is in Trinidad and Tobago until the end of June, participating in a new public administration initiative for the country's public service. Working with the Ministry of Public Administration and Information, he will be the lead change agent for creating the climate for institutional restructuring and its implementation. While Agard is on leave, Jodie McConnell is serving as acting director of human rights and equity.

**HORTICULTURAL SCIENTIST  
NAMED ASSOCIATE EDITOR**

Prof. John Proctor, Department of Plant Agriculture, has been elected to a four-year term as an associate editor for the *Journal of the American Society for Horticultural Science*. He will be responsible for the area of photosynthesis and source/sink physiology.

**CANADIAN AGRI-FOOD  
SYSTEM FOCUS OF TALK**

Prof. Tony Winson, Sociology and Anthropology, was invited to give a plenary address to the National Congress on Rural Studies in Querétaro, Mexico, in March. The title of his talk was "The Canadian Agri-Food System in the Present Conjunction: Tendencies and Contradictions."

## APPOINTMENTS

Prof. Diana Brydon has been named director of the School of Literatures and Performance Studies in English for a three-year term that begins July 1.

David Calvert has been appointed assistant professor in the Department of Computing and Information Science, effective May 1.

Johanne Doucet, academic assistant to the dean of FACS, has been named secretary of Senate on a six-month secondment, assuming duties April 27.

David Dyck of East Carolina University will join the Department of Human Biology and Nutritional Sciences as an assistant professor June 1.

Prof. Doug Powell has been appointed assistant professor in the Department of Plant Agriculture, effective May 1.

Prof. Ken Jeffrey has been named chair of the Department of Physics for a three-year term that begins Jan. 1, 1999. Prof. George Renninger will serve as acting chair of the department from May 1 to Dec. 31, 1998.

Prof. Marjorie Wall has been reappointed chair of the Department of Consumer Studies for a five-year term that begins July 1.



# The Fine Art of Restructuring

"We want people to see that we are a vibrant college and that truly exciting things are going on here."

## WHAT'S HAPPENED IN THE COLLEGE OF ARTS?

- Six academic departments have formed dance pairs.
- The dean rescued a faculty member and a half from under a mountain of paperwork.
- Support staff are wearing new hats.
- Shakespeare has had a facelift.

Proving that there's a creative solution to even the most challenging task, the College of Arts has undergone a two-year process of renewal and emerged with a streamlined administrative structure and a new outlook on the future.

Dean Carole Stewart says the primary focus of the internal review was administrative, but academic restructuring and curriculum renewal have also moved forward. Through early retirements and attrition, the college lost 23 per cent of its faculty over a three-year period ending in 1996, she says. A function of budget cuts imposed by the provincial government, the vacancies turned into a permanent reduction in faculty, which left the college with "a rather heavy administrative structure — eight departments and only 79 faculty."

Natural partnerships were formed between the six former departments of Drama and English, Fine Art and Music, and French Studies and Languages and Literatures. The resulting schools of Literatures and Performance Studies in English, Fine Art and Music, and Languages and Literatures are unique academic units, says Stewart. In each school, the two former departments will work in step with one another while remaining as individual as partners in a dance duo. The College of Arts also includes the departments of History and Philosophy.

Faculty, staff and students were all a little nervous about the changes, says the dean, but she applauds the co-operative spirit in the college that has brought the production on to centre stage.

"We made sure that everyone understood that reorganizing administrative tasks did not necessarily mean reorganizing academic programs. The reduction in administrative units did not mean a reduction in academic offerings in the college; indeed, we hope the new structure will stimulate new ideas and growth within our programs."

Providing leadership for the new college structure are five newly appointed directors and chairs. On Jan. 1, Prof. Daniel Chouinard became director of the School of Languages and Literatures and Prof. Mary Cyr became director of the School of Fine Art and Music. On July 1, Prof. Diana Brydon will become director of the School of Literatures and Performance Studies in English, and Prof. Jamie Snell will become chair of the Department of History.

Following an external search,



College of Arts dean Carole Stewart, left, and directors and chairs Mary Cyr, Daniel Chouinard, Diana Brydon and Jamie Snell add a University of Guelph chair to their group photo as a gesture of welcome for University of Saskatchewan professor Peter Loptson, pictured at right. When Loptson joins them July 1 as chair of the Department of Philosophy, it will complete the college's new administrative structure.

PHOTO BY MARTIN SCHWALBE

Prof. Peter Loptson of the University of Saskatchewan has been named chair of the Department of Philosophy, also effective July 1.

Loptson completed his undergraduate work at York University and earned both MA and PhD degrees from the University of Pittsburgh. He has been a faculty member at Saskatchewan since 1970 and is currently director of graduate programs. His scholarly specializations include metaphysics, 17th- and 18th-century philosophy, modal logic and philosophy of mind. Loptson is also English-language editor of the scholarly journal *Dialogue: Canadian Philosophical Review*, which he will continue to edit from Guelph.

One of the immediate benefits of the College of Arts reorganization is the reduction in faculty release time for administrative duties. "Time equivalent to one and a half faculty members was freed up for teaching," says Stewart. That's a positive spinoff for students and potential students, who are attracted by the number and variety of courses a program can offer. The new school structures will also increase collaboration among faculty whose disciplines are complementary and make it easier for students to broaden their areas of study.

Stewart points to the benefits of moving French Studies into the new School of Languages and Literatures. The dean says the move will increase collaboration generally, but will particularly strengthen the European

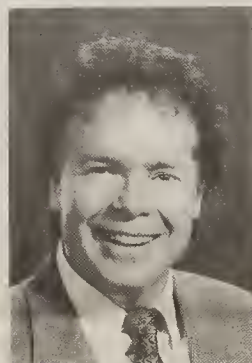
studies program. Launched in 1994, the program requires a year of study abroad after a student has taken at least six courses in a chosen language. Guelph's European studies program is already the most broadly developed program of its kind in Canada, with more than a dozen European institutions participating.

Curriculum review is on the agenda for all academic units in the College of Arts, but Stewart suggests most will experience less dramatic changes in comparison with the extensive facelift under way in the English program. As chair of the Department of English, Prof. Gerry Manning has led faculty through a process of rethinking the way all English courses are taught. Beginning in the spring semester, students will experience a new curriculum that departs from the traditional organization of courses on the basis of genre and period.

Stewart assures us that Shakespeare is still very much there, but now plays a new role in a more theoretical and topic-based approach to literary study. The new curriculum of the School of Literatures and Performance Studies in English links courses in a way that provides students with greater coherency as they move through their programs. In addition, the curriculum will offer a variety of instructional experiences, ranging from large lectures to small seminars in which writing and critical dialogue feature prominently, to self-directed learning modules.

The college has also centralized and strengthened a number of support functions. Barbara Mitterer is the college's new graduate secretary, Lori Barnsley has responsibility for college financial operations, Gail McGinnis deals with academic and personnel issues, and Christine Boyle is working in external liaison. All four moved from other administrative positions in the college to take on these new challenges.

"It's an experiment to see if we can perform these functions more efficiently from one office," says Stewart, who adds that the new structure has worked well in the first few months of operation. Removing personnel, financial and graduate program tasks from academic units should give support staff who remain in those units more time to help faculty, she says, and that will result in more faculty time spent in teaching and research.



The encore to the college's restructuring process is an effort to increase its public profile. A competition to design a new logo for the College of Arts received a wide response from alumni, local artists and high school students. The Dean's Council has awarded four prizes and will use the new logo to enhance its internal newsletter, Web site and other communication vehicles.

All these communication efforts are designed to make the College of Arts more visible, increasing its profile both on and off campus. "We want people to see that we are a vi-

brant college and that truly exciting things are going on here in the areas of humanities and the fine and performing arts," says Stewart. "We have many really talented people in the college who are doing wonderful work, and the rest of the world should know that they are here at Guelph."

The College of Arts faculty includes three fellows of the Royal Society — philosophers John Leslie, Jay Newman and Michael Ruse — and several of Canada's most important writers: novelists Janice Kulyk Keefer and Thomas King and poet and playwright Judith Thompson, a two-time Governor General Award winner.

In the past year, photographer Suzy Lake won a Toronto Arts Award, and the National Art Gallery in Ottawa added a significant volume of sculptor Stephen Schofield's work to its permanent collection. Within the last two years, English professor Donna Palmateer Pennee, fine art professor Margaret Priest and drama professor Alan Filewod have all received teaching awards from the Ontario Confederation of University Faculty Associations — a significant achievement for a University to claim, let alone an individual college. As Stewart writes in the November issue of the *College of Arts News*: "It all makes a dean's heart beat feverishly with pride."

In only five months of publishing a newsletter, Stewart has been able to use it to offer congratulations for these and many other college achievements — most recently the naming of Prof. Gil Stelter, History, as recipient of this year's John Bell Teaching Award.

The college Web site ([www.uoguelph.ca/college-of-arts/](http://www.uoguelph.ca/college-of-arts/)) will be a good place to visit regularly, says Stewart. Designed by network manager Paul Bradshaw, the site provides an outline of academic programs and college news and will feature an up-to-date list of music and drama programs, art exhibitions, lectures and other college events that are open to the University community and the general public.

BY MARY DICKIESON

## College Launches Logo

**A**NU HANNIKAINEN, a Guelph-based art designer who hails from Finland, designed the winning logo in the recent College of Arts competition. She received a \$500 prize for the logo, which uses the University's red, gold and black colors.

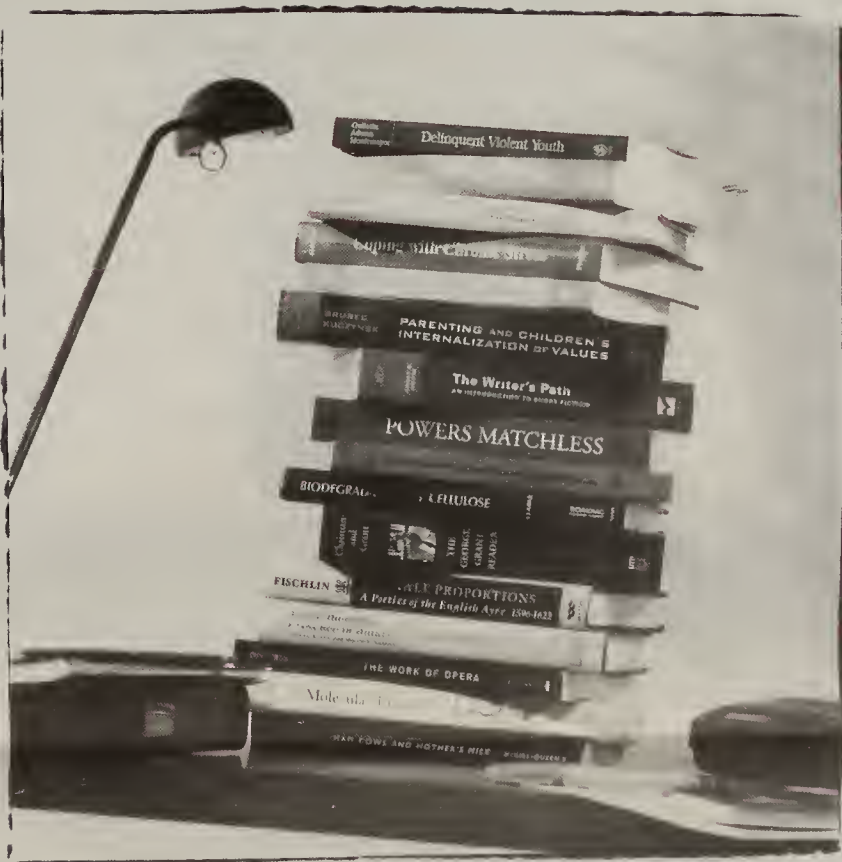
Hannikainen taught at the University of Industrial Arts in Helsinki before immigrating to Canada with her husband. They've lived in Guelph since 1992, and she works as a freelance designer and technical translator.

The college also awarded a \$125 second prize to Chris Hyndman, who graduated from U of G in February with a BA in fine art and mathematics. He's now heading for Ohio University to earn a master's of fine art in painting. Prizes of \$75 and \$50 went to local high school students Tasha Pringle and Parrish Ley.





# BOOKS @ GUELPH



PHOTOGRAPH BY MARTIN SCHWALBE

**A**s a supplement to our ongoing coverage of scholarship and research activities at U of G, @Guelph offers this compilation of books produced by members of the University community and published since January 1997. Impressive in the breadth and diversity of subject areas and disciplines, Books@Guelph launches what we expect will become an annual effort. Please notify @Guelph of any omissions and let us know as new works are published in 1998.



**Prof. Gerald Adams**, Family Studies, co-editor with Thomas Gullotta and Raymond Montemayor, *Delinquent Youth: Theory and Interventions*, Sage Publications, Inc., 1998. This book examines the vast literatures related to how families, peers, schools and the community influence delinquent behavior. Contributors address the issues surrounding criminal behavior in young people and evaluate solutions from the perspectives and research findings from multiple disciplines. Effective interventions and preventions are examined.

Professor emeritus **Eugene Benson**, School of Literatures and Performance Studies in English, co-editor with William Toye, *The Oxford Companion to Canadian Literature*, Oxford University Press, 1997 edition. The overriding theme of the 1997 edition is the emergence of internationalism as a dominant influence in Canadian writing. Whereas the first edition in 1983 was primarily concerned with nationalism, the second is preoccupied with literature that is global in outlook. This edition has 325 contributors and covers fiction, poetry, drama and criticism and explores such current genres as science fiction, multicultural literature, and gay and lesbian literatures in a Canadian context.

**Prof. Greg Boland**, Environmental Biology, co-editor with David Kuykendall, *Plant-Microbe Interactions and Biological Control*, Marcel Dekker, Inc., 1997. This reference/text discusses the critical role of host-pathogen interactions in developing new and alternative biocontrol agents that promote plant health and disease resistance in crop pathogens. It describes state-of-the-art and future technologies leading to more effective biological control programs.

**Prof. William Christian**, Political Science, co-editor with Sheila Grant, *The George Grant Reader*, University of Toronto Press, 1998. This book offers a comprehensive selection of works by Canadian philosopher George Grant, who wrote on subjects ranging from Canadian politics to ancient philosophy. Touching on all phases of Grant's career, the book begins with *The Empire: Yes or No*, written in 1945, and ends with an article on Heidegger left unfinished at the time of Grant's death in 1988.

**Prof. Anthony Clarke**, Microbiology, *Biodegradation of Cellulose: Enzymology and Biotechnology*, Technomic Publishing Company Inc., 1997. This book takes a detailed look at the structure and function relationships of the enzymes involved in cellulose and heteroxylan biodegradation. Full-color three-dimensional illustrations and recently reported evidence make the book informative and timely for researchers in biochemistry, botany, crop science, ecology, microbiology and mycology, as well as researchers in forestry and forest products industries.

**Prof. Steven Cronshaw**, Psychology, with Victor Catano, Willi Wiesner, Rick Hackett and Laura Methot, *Recruitment and Selection in Canada*, ITP Nelson, 1997. Part of a series on human resources management, this book provides an up-to-date review of the current issues and methodologies used in recruiting and selecting employees for Canadian organizations. Written as an introductory textbook, it systematically integrates the different aspects of recruitment and selection with current legal and technical practices.

**Prof. Hank Davis**, Psychology, *Small Town Heroes: Images of Minor League Baseball*, University of Iowa Press, 1997. Davis chronicles the minor league baseball players, fans, managers, ballparks and communities he encountered on a three-summer sojourn from 1993 to 1995.

**Prof. David Douglas**, University School of Rural Planning and Development, with John Marshall, *Municipal Viability*, Intergovernmental Committee on Urban and Regional Re-

**Prof. Daniel Fischlin**, Literatures and Performance Studies in English, *In Small Proportions: A Poetics of the English Ayre, 1596-1622*, Wayne State University Press, 1997. This book offers the first extended examination of the English ayre's literary devices and attributes, including the distinctive literary features that assure the genre a unique place in the cultural achievements of the English Renaissance.

**Prof. Glenn Fox**, Agricultural Economics and Business, *Reason and Reality in the Meth-*

and modifications have taken place — North and South America, China, Australia, New Zealand, the United Kingdom and Continental Europe.

**Prof. Benjamin Gottlieb**, Psychology, editor, *Coping with Chronic Stress*, Plenum Press, 1997. This volume explores the varied circumstances and experiences that give rise to chronic stress, as well as the ways in which individuals adapt to and accommodate them. In addition to editing the book, Gottlieb contributes chapters on "Conceptual and Measurement Issues in the Study of Coping with Chronic Stress" and (with Monique Gignac) "Changes in Coping with Chronic Stress: The Role of Caregivers' Appraisals of Coping Efficacy."

**Prof. Ajay Heble**, Donna Palmatter Penne and Tim Struthers, Literatures and Performance Studies in English, editors, *New Contexts of Canadian Criticism*, Broadview, 1997. This collection of 24 essays brings together many of the diverse voices of contemporary Canadian criticism. In addition to the editors, contributors include Profs. Alan Filewod and Thomas King, School of Literatures and Performance Studies in English, and François Paré, School of Languages and Literatures. Individually and in juxtaposition with one another, the different selections open up timely questions about text and context; criticism and cultural theory; ethnicity, nation and region; and class, race and gender.

**Prof. Bill James**, Engineering, *Advances in Modelling the Management of Stormwater Impacts, Vol. 6, Computational Hydraulics*, 1997. This latest edition, like earlier volumes, comprises selected contributions to an annual international conference on stormwater and water-quality modelling, held every winter in Toronto. Subjects covered in this most recent volume include new ideas about models for source controls, continuous models, urban BMPs and their performance, retrofitting BMPs, combined sewer systems, calibration and sensitivity analysis, combined sewer overflow model problems, water-quality management, data-management systems, ponds and wetlands, wet weather flows, infiltration inflow and planning.

**Prof. David Joseph**, Chemistry and Biochemistry, with Bengt Mannervik and Paul Ortiz, *Molecular Toxicology*, Oxford University Press, 1997. This book defines and reflects the toxicology revolution of the last decade. It focuses primarily on the molecular and genetic basis of the discipline, including drug metabolism, carcinogenesis, programmed cell death and DNA repair. This is the first text to explain the principles of toxicology in depth from the perspective of modern biochemistry and molecular biology, while providing a sense of the historical development of the science. Emphasizing the latest molecular biological approaches, *Molecular Toxicology* discusses xenobiotic biotransformation; reactive intermediates and their interactions with macromolecules; cloning, expression and analysis of the enzymes of biotransformation; and molecular toxicology of aromatic amines, nitrosamines, polycyclic aromatic hydrocarbons and chlorinated compounds.

## Better Communication of Risks Needed



**C**ONSUMERS RARELY RECEIVE clear and timely explanations of perceived risks associated with the foods they eat, chemicals in the environment and modern technologies.

That's what **Prof. Doug Powell**, Food Science, and William Leiss of Queen's University argue in their book *Mad Cows and Mother's Milk — The Perils of Poor Risk Management*. Published by McGill-Queen's University Press in 1997, the book also argues that risk communication practices and malpractices can be analysed to provide a set of lessons to risk communicators for avoiding future mistakes.

As its title suggests, the book tackles controversial and topical subjects. Using case studies such as mad cow disease and health risks associated with silicone breast implants, the book outlines the crucial role of risk management in dealing with public controversies.

In the case study on mad cow disease, one of the most expensive and tragic examples of poor risk management in the last 25 years, the book notes that the

British government did not act in time. For 10 years, the government failed to acknowledge the possibility of a link between mad cow disease and Creutzfeldt-Jakob disease, the human equivalent, until increased scientific evidence and public pressure forced action. The result was the slaughter of more than one million cattle.

Other case studies focus on hamburger disease, a virulent form of the *E. coli* bacterium that has killed hundreds of people in the last few years, the use of a genetically engineered hormone to increase milk production in cows, public controversies surrounding dioxins and PCBs, and the introduction of agricultural biotechnology.

"These case histories show that institutions routinely fail to communicate the scientific basis of various high-profile risks," says Powell. "These failures to inform the public make it difficult for governments, industry and society to manage risk controversies sensibly and often result in massive costs."

search, 1997. This research document critically examines the central theme of the viability of municipalities as a key component of local government throughout most of Canada. Through a review of the international literature, a survey of senior Canadian municipal officials in all provincial governments and interviews with Canada's leading researchers in this field, a conceptual model of municipal viability is developed.

**Prof. O.P. Dwivedi**, Political Science, *India's Environmental Policies, Programs and Stewardship*, B.R. Publishing, 1998. This book introduces readers to the environmental policy-making and management process in India by examining various dimensions of environmental challenges faced by the nation. Dwivedi offers an insider's view. He has monitored developments and changes in India's pollution and conservation policies for almost 30 years and was senior adviser to India's Ministry of Environment and Forests in 1984/85.

**Prof. Robert Etches**, Animal and Poultry Science, co-editor with Steve Harvey, *Perspectives in Avian Endocrinology*, Society for Endocrinology, 1997. This book covers selected papers presented at the sixth International Symposium on Avian Endocrinology in Alberta in 1996.

*ologies of Economic*, Edward Elgar Publishing, 1997. The book examines the scientific status of economics from the perspective of practising economists. It studies how they evaluate their theories, the relationship between those theories and the phenomena they are intended to represent, and the philosophy, methodology and scientific credentials of economics.

**Prof. John Fryxell**, Zoology, with Per Lundberg, *Individual Behavior and Community Dynamics*, Chapman and Hall, 1997. Drawing on recent advances in behavioral and population ecology, this book blends evolution and nutrition dynamics to consider two central questions: Might adaptive behavioral decisions made at the level of individual organisms tend to stabilize nutrition interactions? And how do presumably adaptive behaviors affect nutrition dynamics and what are the implications of trophic dynamics in the evolution of adaptive behaviors?

**Prof. Andrew Gordon**, Environmental Biology, co-editor with Steven Newman, *Temperate Agroforestry Systems*, CAB International, 1997. The book explores the development of temperate agroforestry and agroforestry systems, concentrating on areas in the temperate zones where the greatest advances, adoptions



**Prof. Chandler Kirwin**, Fine Art and Music, *Powers Matchless, The Pontificate of Urban VIII, the Baldachin, and Gian Lorenzo Bernini*, Peter Lang Publishing, 1997. This is the first book-length study on the Baldachin inside St. Peter's, Rome (1624-1633). It situates the bronze monument in the centre of Urban VIII's grand plan for his Pontificate and critically evaluates the structure's design, complicated construction and the meaning in the context of the Pontiff's rearmament of Rome and the Vatican. This study also provides a new interpretation of Gian Lorenzo Bernini's beginnings and early development as an architect and impresario.

**Prof. Leon Kuczynski**, Family Studies, co-editor with Joan Grusec, *Parenting and Children's Internalization of Values*, John Wiley & Sons, Inc., 1997. This book offers a thorough analysis of the complexities of the parental role in children's moral development. It explores the developmental context of parenting strategies, examines how these strategies affect value transmission and discusses parental influence in social and biological contexts.

**Friedrich-W Kuebart**, Languages and Literatures, co-editor with Ulrich Scheck, *Made in Germany*, Goethe Institute, 1997. Kuebart has co-edited both print and video versions of this book, which is being used worldwide by universities and language schools. The innovative medium brings information from business reality into the classroom audiovisually. Ample use is made of two- to four-minute video clips taken from the weekly magazine *Made in Germany* produced by the German international television network Deutsche Welle.

**Prof. John Leatherland**, Biomedical Sciences, editor, *Proceedings of the Third International Symposium on Fish Endocrinology*, 1997. This book is a collection of more than 50 papers presented at the symposium in Japan in 1996. Papers focus on the endocrinology of the brain, reproductive endocrinology, growth, behavior and osmoregulation, as well as aspects of immunology.

**Prof. Theresa Lee**, Political Science, *Politics and Truth: Political Theory and the Postmodernist Challenge*, State University of New York Press, 1997. This book attempts to address the problem of politics and truth as occasioned by the postmodernist critique of philosophical foundationalism. Lee examines the treatment of this problem in the work of thinkers ranging from Plato and Hobbes to Weber, Foucault and Arendt.

**Prof. Steve Leeson**, Animal and Poultry Science, and J. D. Summers, *Commercial Poultry Nutrition*, second edition, University Books, 1997. This book provides a compendium of all nutritional aspects relating to commercial poultry.

**Prof. Jacek Lipkowski**, Chemistry and Biochemistry, and Philip Ross, *Electrocatalysis*, John Wiley & Sons, Inc., 1997. This volume provides a comprehensive summary of recent progress in the technologically important field of electrocatalysis. Interest in electrocatalysis of hydrogen and oxygen electrode reactions

and the electro oxidation of small organic molecules has been heightened recently following renewed efforts to advance fuel cell technology and other environmentally friendly power sources for automobiles. The book is addressed to a wide audience of scientists interested in electrochemistry, surface science, materials science and energy conversion.

**Prof. John Lumsden**, Pathobiology, co-editor with Malcolm Davidson and Roderick Else, *Manual of Small Animal Clinical Pathol-*

**Prof. Bryan McKersie**, Crop Science, co-editor with D.C.W. Brown, *Biotechnology and the Improvement of Forage Legumes*, Centre for Agriculture and Biosciences, 1997. The book describes recent advances in the application of biotechnology to the solution of agricultural problems in forage legume production. Several chapters describe how techniques such as plant transformation, somatic embryogenesis, cryopreservation, somatic hybridization and molecular DNA markers can be applied to forage

city of Ottawa Press, 1997. Mitscherling begins the book with a biography of Ingarden's life, career and works and summarizes his interpretation of Husserl. The book goes on to deal with Ingarden's still-untranslated magnum opus, *Controversy Over the Existence of the World*, and presents exposition and analysis of *The Literary Work of Art*. Later chapters deal with Ingarden's treatment of other kinds of artworks and with his contribution to contemporary aesthetics, ontology and metaphysics.

## Dutch Presence in Ontario Explored



**FOR MORE THAN 20 YEARS**, Prof. Frans Schryer, Sociology and Anthropology, focused his research efforts in Latin America, specializing in the rural history and sociology of Mexico. His work took him on long trips away from home, climbing mountains, riding mules, sleeping on straw mats and crossing through some politically dangerous terrain. Ten years ago, his wife had a suggestion: How about doing research closer to home?

Born and raised in the Netherlands, Schryer picked a subject that was truly close to home — the Dutch community in Ontario. Is there a Dutch-Canadian community or even a Dutch culture in Ontario? What constitutes such a group? In fact, what constitutes an ethnic group? These are some of the questions he set off to answer in a two-year project that grew into a 10-year passion. "It was much more challenging and fascinating than I had anticipated," says Schryer. "I learned a lot more than I dreamed possible." The resulting book, *The Netherlandic Presence in Ontario: Pillars, Class and Dutch Ethnicity*, was published earlier this year by Wil-

frid Laurier University Press.

Focusing on the large cohort of immigrants from the Netherlands and the former Dutch East Indies who arrived in Canada between 1947 and 1960, Schryer shows how the Dutch, despite a loss of ethnic identity and a high level of linguistic assimilation, replicated many aspects of their homeland. While illustrating the diversity among immigrants sharing a common national origin, he keeps sight of what is common among them. In doing so, he shows how deeply ingrained habits were modified in a Canadian context, resulting in both continuities and discontinuities. His central argument is that ethnic groups are as much modern "myths" as they are integral components of a socially constructed reality.

*The Netherlandic Presence in Ontario* will be officially launched this May at a private reception at the home of the Dutch Consul in Toronto. Schryer, who conducted some 350 interviews for this book, now plans to take his study a step further by focusing on Ontario farmers of Dutch background.

**Prof. Ernest McFarland**, Physics, *Einstein's Special Relativity: Discover It for Yourself*, Trifolium Book, 1998. Designed for secondary school students, this book explains Einstein's special theory of relativity and includes a series of exercises and problems to enhance understanding.

**Prof. Scott MacKenzie**, Computing and Information Science, *The 8051 Microcontroller*, third edition, Prentice-Hall, 1998. This is a revised volume on all the pertinent topics associated with the 8051 Microcontroller. The text starts with background material on microcontrollers and progresses through the core 8051 topics. These include a hardware and software summary, timer operation, serial port operation, interrupts, principles of assembly language programming, and program structure and design.

**Prof. Steven Marshall**, Environmental Biology, *Insects of Algonquin Park*, Friends of Algonquin Park, 1997. Containing 240 color photographs, this book provides a general introduction to insect diversity, covering orders, most families and several common species of insects. Although organized by major Algonquin habitats, it offers an overview of insect diversity and biology suitable for naturalists and students of introductory entomology.

**Prof. Karl Meilke**, Agricultural Economics and Business, co-editor with R.M.A. Loyns, Ronald Knutson and Daniel Sumner, *Proceedings of the Third Agricultural and Food Policy Systems Information Workshop*, University of Manitoba, University of Guelph, Texas A & M, University of California, Davis, 1997. This book consists of 13 major papers presented at the workshop, which focused on "Harmonization/Convergence/Compatibility in Agriculture and Agri-Food Policy: Canada, United States and Mexico."

**Prof. Jeff Mitscherling**, Philosophy, *Roman Ingarden's Ontology and Aesthetics*, University of Ottawa Press, 1997. Mitscherling begins the book with a biography of Ingarden's life, career and works and summarizes his interpretation of Husserl. The book goes on to deal with Ingarden's still-untranslated magnum opus, *Controversy Over the Existence of the World*, and presents exposition and analysis of *The Literary Work of Art*. Later chapters deal with Ingarden's treatment of other kinds of artworks and with his contribution to contemporary aesthetics, ontology and metaphysics.

**Prof. Jay Newman**, Philosophy, *Inauthentic Culture and its Philosophical Critics*, McGill-Queen's University Press, 1997. This book puts the contemporary problem of inauthentic culture into philosophical and historical context and goes on to show how traditional philosophical criticism can help us understand cultural phenomena such as TV and public relations, as well as contemporary forms of craftsmanship, democracy and the academy.

**Prof. Jay Newman**, Philosophy, *Religion and Technology: A Study in the Philosophy of Culture*, Praeger, 1997. This book examines the complex relations of religion and technology and the continuing cultural impact of those evolving relations. It considers religious arguments for and against technology, the significance of technology as a religious endeavor and the significance of religion as a technological endeavor.

**Prof. Lambert Otten**, Engineering, and Muhammed Fayed, *Handbook of Powder Science and Technology*, second edition, Chapman and Hall, 1997. This reference book provides comprehensive coverage of the fundamentals of powder science and technology and builds on them, emphasizing practical applications in the design, production, processing and handling of applications. The book features contributions from 21 internationally renowned and respected professionals and researchers in the field. Their chapters focus on problem solving, but also provide a solid link between theory and practice.

**Prof. François Paré**, *Exiguité: Reflections on the Margins of Literature*, Wilfrid Laurier University Press, 1997. This is a translation by Lin Burman of Paré's 1991 book, *Les littératures de l'exiguité*, winner of a Governor General's Award. The book is a reflection on the diversity of cultures and languages in the world and on the survival and richness of "smaller" literatures.

**Prof. Constance Rooke**, Literatures and Performance Studies in English, co-editor with Leon Rooke, *The Writer's Path: An Introduction to Short Fiction*, ITP Nelson, 1998. This book aims to engage readers in responding to literature by offering a variety of Canadian, American and international selections of historical, classical and contemporary significance. It includes 64 short stories and novellas, author and literary critic biographies accompanying each selection, casebook studies and discussions of the art of the story by fiction writers and literary critics.

Professor emeritus **Alexander Ross**, School of Literatures and Performance Studies in English, *A Year and a Day*, Essence Publish-



ing, 1997. The daily entries in this paperback take the reader in and out of past and present as the author remembers his wife, Joan, who died of cancer in October 1994.

Prof. **Michael Ruse**, Philosophy, *Taking Darwin Seriously: A Naturalistic Approach to Philosophy*, second edition, Prometheus Books, 1998. This book is an attempt to apply evolutionary principles to fundamental issues in epistemology (theory and knowledge) and ethics (theory of morality). It draws on Darwinian evolutionary theory and is much influenced by recent thinking in human behavioral ecology.

Prof. **Michael Ruse**, Philosophy, *The Philosophy of Biology*, Prometheus Books, 1998. This is a collection of readings on and around the interface between biology and philosophy on such subjects as evolution, molecular biology, the nature of life and the ongoing conflict between science and religion as represented by the contemporary creationist movement.

Prof. **Michael Ruse**, Philosophy, co-editor with David Hull, *Readings in the Philosophy of Biology*, Oxford University Press, 1998. This collection covers such issues as the nature of natural selection, the problem of teleology, the human genome project and putative essential underpinnings of human nature.

Profs. **Bruce Ryan** and **Gerald Adams**, Family Studies, co-editors with Roger Weissberg, Thomas Gullotta and Robert Hampton, *Issues in Children's and Families' Lives — Vol. 8: Enhancing Children's Wellness: Healthy Children 2010. Vol. 9: Establishing Preventive Services*, Sage Publications, Inc., 1997. *Issues in Children's and Families' Lives* is an annual book series designed to focus attention on the social problems facing children and their families today. Vol. 8 describes the latest research and theories about family, school and community prevention and health-promotion programs to improve the health status of children during the next decade. Vol. 9 takes a developmental contextualist approach to prevention service delivery and identifies state-of-the-art empirically based strategies for strengthening the environments that children develop in.

**Gary Smith**, Pathobiology, co-editor with Andrew Dizon, Susan Chivers and William Perrin, *The Molecular Genetics of Marine Mammals*, Society for Marine Mammalogy,

1997. This is a collection of papers presented at a workshop on the use of molecular genetic data to define marine mammal stocks for management purposes.

Prof. **Peter Stoett**, Political Science, *The Politics of Whaling*, UBC Press, 1997. In this book, Stoett challenges the global moratorium on whaling passed in 1982 by the International Whaling Commission. He argues that a moratorium is no longer crucial to whale survival

tation of the AO/ASIS system in small-animal orthopedic surgery. It is designed both to inform the experienced surgeon of the current situation and to serve as a basic text for the newcomer to veterinary small-animal orthopedics.

Prof. **Howard Swatland**, Food Science, *Computer Operation for Microscope Photometry*, CRC Press, 1997. This book explains how

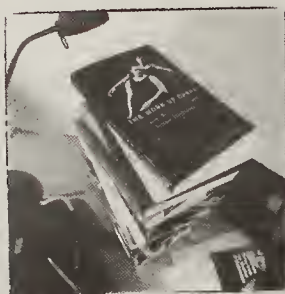
Prof. **David Swayne**, Computing and Information Science, co-editor with Ralph Denzer and Gerald Schimak, *Environmental Software Systems, Vol. 2*, Chapman and Hall, 1997. This volume contains the proceedings of the Second International Symposium on Environmental Software Systems, held April 28 to May 1, 1997, at Whistler, B.C. Environmental information systems (EIS) are an important factor in environmental research, decision support, management and policy. EIS implementations have a number of requirements that are hard to satisfy, even with the information technology of today. Examples of difficult problems and complex projects can be found throughout this book.

Prof. **Jack Trevors**, Environmental Biology, co-editor with Jan Dirk Van Elsas and Elizabeth Wellington, *Modern Soil Microbiology*, Marcel Dekker, Inc., 1997. This reference/text integrates the principles of soil microbiology with novel insights into the physiology and activity of soil microbiota obtained by using the latest modern molecular analyses — investigating relationships between microbial communities, community structures and function.

**Metka Zupancic**, Languages and Literatures, co-editor with Joëlle Cauville, *Réécriture des mythes: l'utopie au féminin*, Rodopi, 1997. This book is a compilation of 19 essays on how female writers of French and francophone tradition constructed their mythical time and space, *utopia* and *utopia*, to survive the challenges of the reality.

**Metka Zupancic**, Languages and Literatures, co-editor with Myriam Watthee-Delmotte, *Le Mal dans l'imaginaire littéraire français (1850-1950)*, Les Editions David and L'Harmattan, 1998. The book contains 35 essays on how evil is perceived by French poets and writers between 1850 and 1950. Essays by scholars from Canada, Belgium, France, Spain, the United Kingdom, Ireland and the United States deal with major representations of evil to be defeated or else of evil as a temptation. From a Christian perception of incarnate evil to more eclectic positions, the essays present a full array of literary attempts to reflect on this major issue in our lives.

## Love of Music Has Roots in Childhood



**PROF. DANIEL FISCHLIN**, Literatures and Performance Studies in English, remembers the day his interest in music began. As a child visiting his grandparents at Emma Lake, Sask., he heard a recording by Lotte Lehmann emanating from his uncle's room.

"I heard the scratchy 78 playing the distinctive tones and immediately set to parodying them with my insouciant boy soprano. My uncle, Robin Carlson, who to this day has the same Eaton's Viking record player and the same collection of Lehmann recordings, chased me out into the forest, ready, I'm still convinced, to thrash me within an inch of my life. I hid in the deep forest surrounding the lake all afternoon, terrified. In the distance, Lehmann resumed singing, and her voice taunted the forest quiet with its impalpable presence."

Years later, Fischlin says, his uncle has yet to forgive him. "And I have yet to tell him what that afternoon

taught me about music. Music as something to cultivate in the privacy and intimacy of a world apart, as a talisman to guard against the encroachments of a world with little tolerance for fantasy and difference."

So writes Fischlin in the introduction to *The Work of Opera: Genre, Nationhood and Sexual Difference*, a collection of essays he edited with Richard Dellamora, acting director of the graduate program in methodologies at Trent University. Published by Columbia University Press, the book contains essays by literary and cultural critics, musicologists and queer theorists. Taking as their focus the relation between opera and nationalism, art and the state, these works explore the interplay between representations of the body politic and the construction of genders and sexualities in opera, from the subversive esthetics of 17th-century opera to the AIDS-inflected performance art of the late 20th century.

because it has achieved the recovery of some whale stocks and, most important, because a whaling industry would have a limited market internationally.

Prof. **Geoff Sumner-Smith**, Clinical Studies, co-editor with Wade Brinker, Marvin Olmstead and Dieter Prieur, *Manual of Internal Fixation in Small Animals*, second edition, Springer-Verlag, 1998. This manual addresses the current techniques used in the implemen-

to connect a PC to a light microscope to make measurements for spectrophotometry, fluorometry and polarized light microscopy. The basic principles of light microscopy and computer interfacing (serial and parallel) are explained, and there are chapters on extending the working range of the light microscope using fibre optics, as well as on controlling the pH and temperature of samples under the microscope.

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# WHY WOULD YOU WANT TO LEAVE PARADISE?

*For Bermuda-born Joanne Darrell, it was a chance to experience the climate of Canadian education*

BY MARY DICKIESON

**J**OANNE DARRELL grew up in paradise. And when she finishes her Guelph degree, she'll be heading back there — to her family home on the island of Bermuda.

All the wonderful things you've heard about Bermuda's subtropical weather, warm water and pink sandy beaches are absolutely true, says Darrell, who hopes to land a job with the Bermuda Department of Tourism when she completes her Guelph BA in social sciences. Right now, she's working as a volunteer tourism ambassador through her role as Miss Bermuda.

Crowned in December, Darrell is the first Miss Bermuda to be away in school during her reign, but she's found plenty to do. The Department of Tourism has offices in several North American cities, including Toronto, and she's made guest appearances for the Tabi clothing chain, which recently launched a Bermuda Bay Wear line of golf apparel.

Darrell says her homeland is equally beautiful above and below sea level, the 22 square miles of island boasting the world's highest concentration of limestone caves and surrounded by coral reefs, which claimed many of the first European explorers who tried to land there in the 1500s. Three centuries later, American wit Mark Twain made it his second home, saying: "Bermuda was a paradise, but you had to go through hell to get there." Fortunately for those of us who live in colder climates, transportation safety has improved considerably since Twain's time, and the airport at St. George now welcomes direct flights by the minute from around the world. Not surprisingly, international business and tourism are Bermuda's key industries.

Most people may think of Bermuda as a once-a-year or once-in-a-lifetime vacation destination, but Darrell says most island residents are frequent travellers, making monthly visits to Paris, London or North American cities like Montreal, New York and Boston for shopping and entertainment. It takes her only 2 1/2 hours to fly home from Toronto — a lot less time than it takes some of her campus friends to get to their homes in northern or eastern Ontario.



She says many of her Mountain Hall friends were surprised when she flew back after Christmas with a tiara under her arm, but beauty pageants are nothing new to Miss Bermuda. She won the 1977 *Mid-Ocean News* baby photo contest when she was a year old. At age 14, she was declared the Bermudian "Look of the Year" by the Elite Modelling Agency and spent two weeks modelling in New York City. A year later, she was second runner-up in the island's Miss Teen competition.

Darrell says these experiences have been both door openers and eye openers. She's done some modelling, but has never considered it seriously as a career and says she didn't like being "the girl from Bermuda" during her two-week experience on the New York fashion scene. "I really hate what my society makes beauty out to be. If you don't have beauty within you, you're ugly outside," says Darrell, who at 21 is finding ways to put the

Miss Bermuda title to good advantage. "For some reason, people are willing to listen to me when I'm wearing that banner."

She wears it when talking to schoolchildren at home and in Canada. Last week, she told students at a Cambridge elementary school to take advantage of the educational opportunities available in their own backyard. Bermuda does not have a university, and Darrell says it bothers her "when I see most Canadians not taking advantage of what they have."

Ironically, many of Bermuda's young people are taking advantage of Canada's schools. Darrell says there are currently 1,000 Bermudians studying abroad — a third of them in Canada, where maritime and Ontario universities are popular destinations. U of G counts 40 alumni among the island's 58,000 residents.

Darrell graduated from Bermuda's public school system at age 17 and spent two years training as a police cadet before coming to Canada. She says it was her Canadian-born mother who insisted she leave the island to further her education, so she chose Ontario to be close to friends and relatives. She completed Grade 13 at Bishop Strachan School in Toronto before enrolling at U of G with a younger sister who has since transferred to Acadia University in Nova Scotia.

When she's home this summer, Darrell will be taking three distance education courses that will enable her to complete her degree in December. She'll also be opening doors as Miss Bermuda, visiting more classrooms in Bermuda's public school system to push the value of higher education, and trying to start a support group for bi-racial students and people involved in interracial relationships.

Darrell has been a victim of racially motivated intimidation herself and thinks a support group could help many of Bermuda's young people deal with those issues, whether they stay on the island or leave to study or work. Her advice may sound much like the answer she gave her U of G housemate who asked: "Will you still be my friend now that you're Miss Bermuda?" Darrell told her to ignore the title and the tiara. "I look for people who are beautiful on the inside, and they'll be friends on the outside."

PHOTO BY DEAN PALMER/SCENARIO IMAGING

## Landscape Architecture Archives Go Onsite

*Pilot project hopes to become a model of Web site access and an internationally significant archival resource*

**A** NEW CENTRE for Canadian Landscape Architecture Archives (CCLAA), the first U of G special collection to be posted online, hopes to become a model of Web site access and an internationally significant archival resource.

The pilot project, now part of the University archival collections, is located at <http://www.lib.uoguelph.ca/cclaa.cclaa.htm> on the U of G Library server. The Web site, demonstrated and launched by Prof. Walter Kehm, Landscape Architecture, at the Canadian Society of Landscape Architects conference in Montreal last month, has received positive feedback from both national and provincial organizations.

In addition, several offers of donations to the collection have already come from individuals, corporations

and organizations throughout the industry.

In addition to Kehm, members of the CCLAA working group are Sue Bennett, project co-ordinator in the OAC dean's office; librarian Pat Eaves-Brown; Bernard Katz, head of special collections; and Tim Sauer, head of collection services.

"The formalization of the archives is occurring at a critical time because many offices, both in the public and private practice realms, are disposing of their reports, plans and drawings," says Kehm. "Several offices have already been contacted and have expressed sincere willingness to participate."

The Web site consists of a home page, several detail pages, three featured collections, a feedback form for evaluation and support, and hot

links to related sources. The Web site also contains the winning entry in the CCLAA's logo contest, designed by third-year landscape architecture student Marc Ryan.

The posted collections feature the careers of landscape architects Lois Lister of Toronto, George Tanaka of Vancouver and Howard Dunnington-Grubb of the Toronto area. They contain a broad range of media, including prints, hand sketches, oversized drawings, photographs, letters and transparencies.

Seed money from a donor enabled the University to initiate the collection, and reproduction and digitization were accomplished using University resources in the library as well as the graphic arts lab in the Department of Environmental Biology. One of the goals of the

CCLAA is to generate interest and financial support from the professional community to continue funding the centre. Other goals are to generate scholarly interest in the area of cultural landscape studies, to serve as a repository of contemporary landscape architecture and land-planning projects and research, and to serve as a co-ordinating location to network with the Centre for Contemporary Architecture in Montreal and with other university and governmental archives throughout the country and abroad.

"These materials will become basic resources for future research and teaching in Canadian landscape architecture," notes chief librarian Michael Ridley. "Preservation efforts at the library will ensure that the historical record is maintained and

made accessible to everyone."

OAC dean Rob McLaughlin notes that Canadian landscape architects are renowned throughout the world, but are often unsung heroes in their own country.

It is a critical time to preserve their work because many materials are being thrown out or lost, particularly from the 1960s and '70s, two vital decades in the history of Canada's natural, cultural and economic evolution, says Kehm.

"A great deal of invaluable material has been — and continues to be — destroyed," he says. "The archives project will allow the University to aggressively mount a campaign to retrieve these materials."

BY MARGARET BOYD  
OFFICE OF RESEARCH



# IS EDUCATION AN END IN ITSELF?

*"If I had to recommend one single thing to improve teaching in the universities, it would not be educational theory, but addiction to theatre."*

BY DON STEWART

IN THE FEB. 27 ISSUE of *At Guelph*, Prof. Sandy Middleton argued that we could improve the level of university teaching by encouraging the scholarship of education on the model of the scholarship of discovery with which we are familiar.

It may seem a bit like stomping on motherhood, but I am not at all sure that the effect of more scholarship of education will be beneficial. Middleton cites a recent Houghton Mifflin ad to show we have not even begun to develop education to its full potential: "Education is the only thing some people are willing to pay for and not get," it proclaims. Caveat emptor! When we get it, I suspect it will have a lot more to do with Houghton Mifflin than with knowledge.

I border here on being reactionary — a dinosaur stranded in a university microclimate after the education meteor has struck — but from this perspective, "education" and educational theory look a little like a spreading cloud of debris poised to blot out the sun. Education, I will suggest (since I certainly cannot prove it), is becoming ubiquitous. It is about to become the 21st century what the church was to the 16th. And, like the medieval church, it is becoming an end in itself.

Let me turn to Middleton's argument. He speculates that we fail to engage in the scholarship of education because we are loath to reveal our deficiencies as teachers and because such scholarship is perceived as a threat to grants, peer appreciation, publication and so on, i.e., to academic advancement. My own speculation is not so sinister; rather, I suspect our motives are more ordinary, even comically so:

"How many professors does it take to change a light bulb?"

"I don't know, how many?"

"Change?"

Still, Middleton is half right; academic advancement depends largely on scholarship. The question is what might happen if we were to emphasize educational scholarship? His answer would be better teaching. My view is more cynically tautological: more educational scholarship. Indeed, I suspect we would replicate our scholarly selves at the educational level complete with all the usual administrative carrots and sticks.

The chief academic research carrot is grant money. Voila, ESRC! The Educational Science Research Council. I leave the rest to your imagination. Sticks, we already have. We beat (good) teachers about the head with the "promotion" stick to encourage educational research. My understanding is that to be promoted for teaching at Guelph, you have to publish in education as well. With greater emphasis on the scholarship of education, you might suspect that good teaching could drop out of the



picture altogether and promotion rest entirely on some combination of the two "scholarships." Wiser heads might prevail, but don't bet the farm.

This raises the premise on which Middleton's argument rests: that improved scholarship in education will in fact pay off in improved education. I think this is at the very least open to question. Good teaching is not a function of good scholarship in anything like the direct way good mathematics or good genetics is a function of good scholarship. You can have a fabulously good teacher who has never sniffed the coffee of educational research, but you cannot have a good mathematician or good geneticist who has not woken up to the smell of mathematics or genetics. Conversely, good researchers have been certified dead on arrival at the classroom before — even educational researchers.

Let me make the positive case. Ronnie Jack, professor of Scottish and medieval literature (not exactly a sure-fire draw) at the University of Edinburgh, packs them in not because he is an educational scholar, but ECOMIN because he is a very funny actor. He mumbles to himself during lectures: "I must be boring! I must be boring!" to keep from turning his lectures into a show (*Times Higher Educational Supplement*, Feb. 6, 1998). If I had to recommend one single thing to improve teaching in the universities, it would not be educational theory, but addiction to theatre — although I'd settle for some basic acting lessons. Being able to create the emotional presence of the complexity of knowledge is worth its weight in overhead projectors.

A more chilling view of the matter comes from Stephen Gorard of the School of Education at the University of Wales. He claims he can predict with "depressing accuracy" any individual's participation in learning, with just basic (social) birth data (*THES*, Jan. 16, 1998). That is, he says he can predict success in learning quite independently of what goes on in the classroom. If Gorard is right, the split between research and learning, if not teaching, is absolute, and the only way learning can be extended beyond certain socially determined limits is by changing those limits.

This is sobering research. We already see education as the key to the good life and have committed enormous resources to overcoming the social impediments to learning. My worry is that we will settle for the sizzle without the steak, that we will put life at the service of learning rather than learning at the service of life and, at the extreme, turn homo sapiens into homo docilis, "teachable human."

Perhaps I exaggerate the slipperiness of the slope from Middleton's increased emphasis on educational scholarship to educational totalitarianism, but once we stress education for its own sake, universities will give way to the "learning experience," "lifelong learning," "teachable moments," "learner-centred education" and so on rather than the anthropic principle, mitochondria, utility functions, epithelial cells, poems, game theory, symbolic exchange, quarks, death and all the rest.

Let me push the distinction just a bit further. Teachers test what is taught. Scholars test the world. It is revealing that we allow students to "challenge" (some) courses. A challenge is the exception that proves the rule, however. The rule? Class time, not the content, is paramount. Indeed, some students are already so geared to education as a classroom experience that they insist on the precise number of class hours they have paid for.

One final gasp. Both the economics and the social conception of "education" are now in place to transform university into part of what some theorists have called a "pastoral discipline." The analogy is with the judicial and mental health systems, and the argument is that these disciplines of care have defined their subjects and their places in society through the implementation of the knowledge bases by which they identify, classify, treat, cure and/or discipline their clients. If the theory of education gains this sort of status, then education will indeed turn from its primary purpose of discovery and dissemination of knowledge to the role of determining our place in society.

Prof. Don Stewart is a faculty member in the Department of Philosophy.

ILLUSTRATION BY JIM STEWART

## When Horses Count Sheep

OVC researchers help make equine anesthesiology safer

WHEN THE FEDERAL government and the veterinary pharmaceutical company Boehringer Ingelheim needed help determining the safety of a highly touted equine sedative, they turned to researchers at OVC. Now those researchers are refining applications for this medication to take even more of the risk out of equine anesthesiology.

For the last four years, Prof. Wayne McDonell, Prof. Glenn Pettifer and staff anesthetist Subhpal Singh, all of the Department of Clinical Studies, have been focusing

on the evaluation of a sedative called romifidine (trade name Sedivet). Used with horses in Europe and Australia, it wasn't licensed in Canada until McDonell and graduate student Carolyn Kerr carried out Canadian safety and efficiency testing that gave it the green light.

They also studied the cardiovascular function of horses during the sedative's use as a premedication before ketamine — a general anesthetic. In addition, they looked at sleep induction, duration and recovery characteristics resulting from the combined use of romifidine and

ketamine. They found that romifidine, used on its own and in combination with other drugs, produces fewer negative effects than the most commonly used anesthetic drug regimens and lasts slightly longer.

"Historically, giving an anesthetic to a horse in a farm environment was frightening for veterinarians and owners," McDonell says.

"But now, with modern drugs and techniques, there's rarely a problem. Our goal is to surpass today's already high anesthesia standards by introducing even better

drugs and anesthetic techniques to vets."

In another project, the researchers studied the effectiveness of glycopyrrolate, a drug used in conjunction with anesthetics to prevent decreases in heart rate and to improve blood pressure and oxygen supply to the tissues.

They found that this drug is effective in increasing blood flow, but surprisingly, is active at much lower levels than is currently used in practice. McDonell says this discovery is important because a small percentage of horses that undergo anesthe-

sia, surgery and glycopyrrolate develop an intestine block that needs to be surgically corrected. This complication may have been partly produced by doses of glycopyrrolate that were too high.

"Minimizing the complications of anesthesiology will reduce the need for longer and more expensive post-surgical recovery periods," says McDonell.

This research was sponsored by Boehringer Ingelheim Canada and Ayerst Veterinary Laboratories.

BY JENNY TYE  
OFFICE OF RESEARCH



# CLASSIFIEDS

## FOR SALE

Garage sale, April 25, 15 Shirley Ave., 8:30 a.m. to 1 p.m.

1995 Chrysler Sebring LX, two-door hardtop, V6, automatic, air, AM/FM CD player, low kilometres, still under warranty, 822-9323.

Three-bedroom custom-built side-split, hardwood floors, two baths, large kitchen with Barzotti cupboards, finished rec room, private fenced yard, north-end neighborhood, close to schools, 824-8249.

Sailboat, CL14, jib and main sails, trailer, good condition, Ext. 3092 or 763-6954.

GE refrigerator, almond, three-door side-by-side; four- and nine-drawer dressers; single electric bed, leave message at 821-1879.

Small woodstove with chimney pipes and fire screen, good size for cottage, excellent condition, Ann, Ext. 2377.

Samick grand piano, six-foot, black, 1991, Ext. 2777, 824-4177 between 9 a.m. and 4 p.m. or send e-mail to kcarey@uoguelph.ca.

Single extra-long futon mattress and futon chair frame, garden shed, 821-2133.

Robert Bateman prints: *Orca Procession*, *Midnight Black Wolf*, *Arctic Wolf*, 821-3158 after 5 p.m. or leave message.

1977 Dodge Delta 23-foot motorhome, 400-horsepower motor, sleeps six, air conditioning, awning, three-piece bath, 60,000 miles, 821-9227 evenings.

1976 Chev 17-foot custom motorhome, 350 engine, loaded, new propane tank, refrigerator, stainless steel holding tanks, three-piece bath, air, awnings, gas generator, 821-9378.

Large desk, brass day bed, wooden single bed with box spring, large dresser with mirror, small table, 766-9466.

Estate lot in Fox Run Estates, Aberfoyle area, one acre with 164-foot frontage, 763-7569.

## FOR RENT

Three-bedroom equipped lakefront cottage, Mill Lake, Parry Sound, available mid-June to Thanksgiving, four kilometres to town, 905-822-9015 evenings.

Two-bedroom penthouse apartment in historical Guelph stone house, Exhibition Park area, available May 1, \$899 a month; furnished bachelor apartment in Montreal for summer sublet May to July, full kitchen and bath, five minutes from McGill, \$320 a month, 824-1773.

Furnished four-bedroom home on quiet cul-de-sac, 2 1/2 baths, close to schools and shopping, double garage, central air, private fenced yard, seven-minute walk to campus,

non-smokers, available either Sept. 1, 1998, to Aug. 31, 1999, or Jan. 1 to Aug. 31, 1999, \$1,450 a month plus utilities, Ext. 3548, 824-2104 or send e-mail to guest@angus.chembio.uoguelph.ca.

Furnished apartment in Montreal for summer sublet May to August, suitable for two people, close to McGill, 763-5239, Ext. 3846.

Room in house, laundry, parking, two baths, yard, walking distance to park and downtown, 10-minute walk to campus, fall option available, \$200 a month plus utilities, 837-1141 or send e-mail to elliot@uoguelph.ca.

Large apartment to share with one person, Speedvale Avenue West, parking, sauna, laundry, storage, available May 1 for four months or with a fall option, \$380 a month inclusive, Sarah or Angie, 766-0257.

Furnished four-bedroom home in University area, fenced yard, two baths, appliances, lease and references required, available Aug. 1, 1998, to Aug. 1, 1999, suitable for visiting professor with family, \$1,300 a month plus utilities, Ext. 4934 or 836-6264.

Furnished room for responsible non-smoker in private home, parking, cooking privileges, leave message at 766-9955.

Large one-bedroom attic loft apartment in elegant Victorian home, non-smokers, no pets, suitable for single person or couple, mature individuals only, available May 1, \$625 inclusive, 837-1717.

Large bedroom for summer sublet with fall option, 15-minute walk to campus, on bus route, close to mall and shopping, share townhouse with two others, leave message for Karen or Margy at 821-6057.

Three-bedroom house in St. George's Park area, five appliances, central air, hardwood floors, close to parks, bus, shopping and campus, available May 1, \$850 a month plus utilities, 822-8245.

Three-bedroom townhouse condo in Blue Mountain/Collingwood area, fully equipped, three baths, two fireplaces, Jacuzzi, central air, heated pool, hot tub, tennis courts and sauna at rec centre, view of mountain, beach within minutes, \$750 a week, 837-1379.

Semi-furnished three-bedroom century stone house, 1 1/2 baths, large back room with great windows, hardwood floors, yard, shed, washer/dryer, downtown location, non-smokers, available July 1 to June 30, 1999, \$1,300 a month plus utilities, Jay, 822-3493.

One-bedroom apartment, walk to campus, private entrance, covered porch, ensuite bath, laundry, available May 1, 824-4873.

Bachelor-style basement apartment, separate entrance, bathroom and kitchen, laundry, parking for one car, on bus route, 15-minute bike ride to campus, no pets, suitable for

single student, mature individuals only, available Sept. 1, \$425 a month inclusive, 837-2227.

## WANTED

Professional couple looking for clean accommodation close to campus, laundry, parking, Lalit, Ext. 3707, or Ruth, 823-9782.

Three-bedroom rural home or farm, preferably in the south end or Puslinch area, for responsible family, non-smokers, references available, one-year lease minimum, possession in June or July, 763-4344 evenings or send e-mail to jlevis@agri-food.com.

Person to share large old stone house on one acre in downtown Guelph, laundry, parking, storage, large kitchen and living areas, non-smoker, no dogs, available May 1, \$400 a month plus utilities, Meg, Ext. 4786 or 822-2430.

Single room for four months, September to December 1998, preferably with non-smokers, laundry facilities, Andrea, 826-6904.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Linda Graham, Communications and Public Affairs, Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@exec.admin.uoguelph.ca. For more information, call Ext. 6581.

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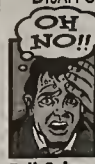


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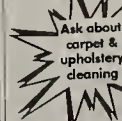
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## ARBORETUM

The final dinner-theatre performance of *Two and Two Make Sex*, a comedy by Richard Harris and Leslie Darbon, runs April 25 at Theatre in the Trees. Doors open at 6 p.m.; showtime is 8 p.m. Tickets are \$45. For information, call Ext. 4110.

The Arboretum Auxiliary and Salamander Theatre present "A World of Stories" April 28 at 6:30 p.m. at the Arboretum Centre. A collection of stories from around the world will be presented, inspiring children to share their own stories. Suitable for ages four to 12. Tickets are \$5 and are available at Tributaries, Simply Wonderful and the Arboretum. For more information, call Ext. 2113.

Horticulturist Henry Kock leads spring wildflower workshops and tours in May, discussing the identification, life cycles, ecology and culture of spring-flowering woodland plants. Workshop participants will meet twice (May 5 and 20) to observe the flowering plants in early and late May. Morning and afternoon sessions are available. Cost is \$35. Register by April 28 at Ext. 4110.

## GRAD NEWS

The final examination of **Katrina Merkle**, a PhD candidate in the Department of Animal and Poultry Science, is April 24 at noon in Animal Science and Nutrition 306. The thesis is "Calcium Regulations During Epididymal Maturation of Equine and Porcine Spermatozoa." The adviser is Prof. Mary Buhr.

The final examination of **Ramin Farshad Tabrizi**, an M.Sc. candidate in the Department of Computing and Information Science, is April 28 at 10 a.m. in Reynolds 212. The thesis is "The Probabilistic Supervised Self-Organizing Map (PSSOM)." The adviser is Prof. Deborah Stacey.

The final examination of **Susan Detwiler**, an MFA candidate in the Department of Fine Art, is April 30 at 10:30 a.m. at Lynnwood Arts Centre, 21 Lynnwood Ave., Simcoe. The adviser is Prof. Stephen Schofield.

The final examination of **William Keith**, a PhD candidate in the Department of Food Science, is May 5 at 9 a.m. at 1 Stone Rd., Room 407. The thesis is "Microbial Reduction in Flour and Spice Using Pulsed Electric Fields." The adviser is Linda Harris.

## NOTICES

The Canada-European Community Program for Co-operation in Higher Education and Training, which supports the development of international projects among universities, colleges and technical institutions in Canada and countries of the European Community, has announced a third funding competition. Application deadline is May 29. For more information, visit the Centre for International Programs InfoCentre on Level 2 of Day Hall.

The U of G Child-Care and Learning Centre will hold its annual garage sale April 25 from 9 a.m. to 3 p.m. in the centre's parking lot.

The International Development Network has established a new Web site at <http://www.idn.org/>. The site is designed to be a central information resource for economic development professionals from around the world. Features include the latest development news from major donor agencies and NGOs, funding opportunities, a bookstore, development links, conference/symposia announcements, country profiles and tools for development professionals.

The Office of Open Learning presents the third annual Japanese Sword-Smithing Workshop July 20 to 24 in St. Jacobs. Cost is \$1,595 before May 1, \$1,795 after. For more information, call Remo Petrongolo at Ext. 3064, fax to 767-0758 or send e-mail to [rpetrong@open.uoguelph.ca](mailto:rpetrong@open.uoguelph.ca).

## SEMINARS

The Department of Biomedical Sciences concludes its winter graduate student seminar series April 24 with Sue Walker discussing "Reproductive Endocrinology of the Red Wolf" at 12:30 p.m. in OVC 1642.

The Guelph-Waterloo Centre for Graduate Work in Chemistry and Biochemistry will hold its annual meeting and seminar May 1 at the University of Waterloo. The meeting begins at 1 p.m. in Room 1302 of the Davis Centre. At 3 p.m., Prof. Richard Oakley gives a public seminar on "Inorganic Rings, Chains and Quips." This will be followed by a poster session, reception and awards presentation.

Two candidates for a faculty position in the Department of Molecular Biology and Genetics will speak on campus. Judith West-Mays of Tufts

University of Medicine will explain "Molecular Mechanisms and Genes Regulating Early Morphogenesis of the Eye" April 27; Susan Crosthwaite of Dartmouth Medical School in New Hampshire discusses "Tick Tock, What's a Clock? Molecular Dissection of the Neurospora Circadian Clock" April 30. Both talks begin at 2 p.m. in Axelrod 028.

## WORKSHOPS

Teaching Support Services and Computing and Communications Services are offering a series of presentations and workshops April 27 to May 1. On April 27, "Introduction to Digital Images" runs from 10 a.m. to noon in MacKinnon 019, and "Effective Design for the Web" is slated for 1:30 to 3 p.m. in Day Hall 123. An advanced session on PowerPoint runs April 28 from 1 to 4 p.m. in the Library Multimedia Centre. On April 29, the topics are "HTML Looking Under the Hood" from 9:30 a.m. to noon in the Multimedia Centre and "Design Café" from 1:30 to 3 p.m. in Day Hall 125. Scheduled for April 30 are "Jump Start Your Web Site Using a Course Template" from 9:30 to 11 a.m. in the Multimedia Centre and "PowerPoint for Teaching" from 1:30 to 3 p.m. in the library's group viewing room. The series wraps up May 1 with "Hands On: Level 2" from 9:30 a.m. to noon in the group viewing room. Registration is required. Call Helen Martin at Ext. 2427 or visit the Web site <http://www.tss.uoguelph.ca/ce/web-dev98.html>. For more information, call Mary Nairn at Ext. 3571.

"Using Co-operative Learning in Your Discipline" is the topic of a workshop May 21 from 9 a.m. to noon at the Doon campus of Conestoga College. Internationally renowned co-operative learning expert Idahlyne Karre will lead the session. Cost is \$20. To register, call Janet Zilio at 519-748-5220, Ext. 399, fax to 519-748-3558 or send e-mail to [zjilio@conestogac.on.ca](mailto:zjilio@conestogac.on.ca).

## COMMUNITY EVENTS

The Guelph and Wellington County Master Gardeners will hold their annual plant sale May 9 from 8:30 a.m. to noon (rain or shine) at the Guelph Turfgrass Institute. Donations of any plant material are welcome from the general public. For pickup, call 821-1879 or 836-7657 by May 7.

The Central Ontario Orchid Society meets April 27 at 7 p.m. at St. Joseph Catholic Church at Courtland and

Madison in Waterloo. Guest speaker Peter Croezen will discuss "Orchid Mycorrhiza: Root/Fungi Symbiosis." For more information, call Ext. 4375.

The Arkell Schoolhouse Gallery presents Jacques Israelievitch, concertmaster of the Toronto Symphony Orchestra, May 1 at 8 p.m. Tickets are \$20. For reservations, call 763-7528.

Guelph Little Theatre stages *The Prime of Miss Jean Brodie* April 23, 24, 25 and 30 and May 1, 2, 7, 8 and 9 at 8 p.m. For ticket information, call 763-3000.

Garden Clubs of Ontario presents a juried flower show May 7 and 8 at the Royal Botanical Gardens in Burlington. The show is open to the public Thursday from 10 a.m. to 8 p.m. and Friday from 10 a.m. to 4 p.m. Admission is \$6 for adults, \$5 for students and seniors and free for children under 12.

The Guelph Chamber Choir and friends will perform Beethoven's *Mass in C* May 9 at 8 p.m. at the River Run Centre. Under the direction of Gerald Neufeld, the choir will also perform works by Peter Paul Koprowski, Lili Boulanger and Eric Robertson. Guests soloists are Carol Ann Feldstein, Stephanie Kramer, Glyn Evans and Neil McLaren. For tickets, call the River Run Centre box office at 763-3000.

The AIDS Committee of Guelph and Wellington County presents "Masquerade," a benefit fashion show May 3 at 7 p.m. at the Italian-Canadian Club in Guelph. Tickets are \$20. A reception will be held at the Spiral Club starting at 10 p.m. For more information, call Julie McCann at 763-2255, Ext. 22.

The Canadian Federation of University Women is hosting a spring gathering for clubs from southwestern Ontario April 25 at 9:15 a.m. in Room 1714 of the OVC Learning Centre. The program is titled "Science for the Community" and features topics such as food safety and cloning. Speakers include Prof. David Waltner-Toews, Population Medicine, and Prof. Don Rieger, Biomedical Sciences.

Guelph Arts Council and Guelph Visitor and Convention Services present "Discover Guelph: Be a Tourist in Your Own Town" May 9 from 11 a.m. to 4 p.m. By purchasing a passport for \$5 (free for children), locals will have a unique opportunity to discover art, culture, history,

performance, nature and many other treasures in their community. For more information, call 836-3280 or 837-1335.

The Suzuki String School of Guelph will hold its last group of concerts of the school year May 2 and 3. A chamber music recital is slated for May 2 at 2 p.m. at the First Christian Reformed Church. On May 3 at Westwood United Church, an orchestra concert begins at 2 p.m., followed by the school's spring concert at 3 p.m. Admission is free.

The Wellington County Historical Society meets May 3 at 2 p.m. at Glen Allan United Church in Glen Allan. Linda Brown-Kubisch, one of the foremost researchers into the black communities of the "Queen's Bush," will give an illustrated talk on "Early Blacks and Fugitive Slaves in the Queen's Bush, Canada West."

The Ontario Public Interest Research Group (OPIRG) will hold its 19th annual Speed River cleanup June 6 at the Royal City Park starting at 9:30 a.m. (Rain date is June 13.) Everyone is encouraged to form teams of eight to 10. You can also sign up and groups will be formed for you. To thank the volunteers, a barbecue sponsored by RE/MAX Realty Specialists Inc. will be held after the cleanup at McCrae House. The Boathouse is hosting a community appreciation event at 8 p.m. For more information, call 824-2091.

McCrae House will host its annual Poppy Push fund raiser May 2 from 11 a.m. to 5 p.m. Several varieties of poppies will be available for sale. The redesigned McCrae gardens will be officially opened at 11:30 a.m., followed by a special room dedication in the house.

Guelph's tea lady, Melody Wren, and master tea blender Michael Horst will lead a workshop on tea May 12 from 7 to 9 p.m. at Guelph Civic Museum. They will discuss the history, blending and etiquette of tea. Tickets are \$20. To register, call 836-1221.

The Ontario Summer Games is looking for musicians to develop a theme song for the games. The song must be under four minutes and must support the theme "Reach for Your Dreams." The winning song will be played at the opening ceremonies Aug. 14. Entries are due June 1 at 4:30 p.m. at the games office at the Stone Road Mall. For more information, call 822-4263.

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- 5 IN A SPECIAL four-page supplement, @Guelph highlights research supported by NSERC and SSHRC at U of G.
- 9 PHILOSOPHY PROFESSOR asks: Are juries ever justified in setting aside the law?

## Reviews Mixed on Ontario Budget

*Province doesn't address issues of underfunding*

ONTARIO FINANCE Minister Ernie Eves' May 5 budget appeared on the surface to offer positive signs for provincial universities, but provost and acting president Iain Campbell is mixed in his opinion.

"There is some good news here after years of provincial cuts to postsecondary education," says Campbell. "That the government has at last turned its attention to some of the outstanding problems of Ontario universities is welcome. At the same time, the basic issues of university underfunding and student debt load remain undressed; Ontario will continue to be ranked 10th out of 10 provinces in per-capita funding of universities."

Although most details remain to be announced, budget highlights included:

- The province will "accelerate" \$135 million in funding over the next three years from the previously announced Ontario Research and Development Challenge Fund (OCDF) to match the Canada Foundation for Innovation's awards to institutions. As a result, the fund's duration will be shortened from 10 years to seven.
- Under the Access to Opportunities Program, \$150 million over

See AWARDS on page 10



## COLLEGE TIES

The May 1 launch of the new College of Social and Applied Human Sciences was officially celebrated at a ceremony attended by current and former faculty, staff and students of the College of Family and Consumer Studies and the College of Social Science. Raising a toast to the future of the new college, are from left, CSS dean David Knight, president Mordechai Rozanski, Prof. Constance Rooke, associate vice-president (academic) and FACS dean Michael Nightingale.

PHOTO BY VERN MCGRATH

## May Day Marks Historic Change

*New college spans wide range of scholarship in social and applied human sciences*

MAY DAY 1998 will be remembered as a significant moment in the history of the University of Guelph.

On May 1, the University community officially welcomed aboard the College of Social and Applied Human Sciences (CSAHS), the result of a proactive and strategic union of the College of Family and Consumer Studies (FACS) and the College of Social Science (CSS).

"I'm excited," said interim CSAHS dean Michael Nightingale at a ceremony marking the creation of the new college. "In fact, I would say there has been a certain excitement and expectation building since the January Senate meeting when an overwhelming majority supported the creation of the new college. Now that it's a reality, we're poised to make a leap into the future, a future which I think holds great promise. The challenge for us is to capitalize on this promise."

Capitalizing will mean taking up opportunities for research and teaching synergies, building interdisciplinary ties and networks, and integrating knowledge. Provost Iain Campbell, who together with president Mordechai Rozanski challenged FACS and CSS to explore a new partnership, says Guelph now has "a new entity that spans an impressive range of scholarship in the human and social sciences and their applications. There is an enormous

range of possibilities for collaboration, significant potential to attract new research funding through the development of ideas drawn from people from the various disciplines, and the great possibility of developing innovative teaching ventures. The college has the potential to become a powerful academic force and a major player in shaping public policy and services not only in Ontario, but Canada as well."

Jason Hollman, president of the CSS Student Government, is confident the new college will spell opportunity. "There will be a lot more collaboration between departments, a better selection of courses, more research units and opportunities to take part in that research," he says. "All these things are good for students."

Shelly Marr, president of the FACS Student Government, concurs. Recalling last year's student information sessions about the amalgamation, which attracted more than 120 students, she says: "A lot of students are enthusiastic about the merger. The general consensus is that there are going to be a lot of new learning opportunities for students."

That the amalgamation happened as smoothly as it did is a credit to all parties in both colleges, says former CSS dean David Knight. "I couldn't be more pleased that we've managed to make this happen," he

says. "It was an enormous challenge to bring together two colleges with their own identities and cultures. That we are where we are today is owed primarily to department chairs, faculty, staff and students, who worked co-operatively to take care of the details as well as the larger issues."

The new college was not conceived in a vacuum. Overarching the discussions has been a growing consensus that the pace and pressure of human issues underlying Canadians' economic, social and political condition have never been quicker, more intense or more rapidly changing. This was underlined in the "Vision for the New College" brought before Senate in January 1998, where it was noted that creation of the new college "is based on a common desire to develop a strong, vibrant and progressive academic community that is distinctive in scope and responsive to a range of pressing societal needs."

The college will have seven departments, one school and six academic centres, and will be home to 140 faculty, 50 staff, 3,600 undergraduates and 270 graduate students. This past year, FACS and CSS had 33,000 course enrolments in undergraduate programs.

A search process will get under way shortly to find a dean for the college. Until then, Nightingale remains as interim dean, and Knight

will return to teaching.

The new college will feature a wealth of leading teachers and researchers, combined with a tradition of applying lessons learned to real-world problems, all housed in a single academic structure.

"Building on the strong and proud traditions of the Macdonald Institute and its successor, FACS, as well as the College of Social Science and Wellington College, the College of Social and Applied Human Sciences will be distinct," says president Mordechai Rozanski. "Perhaps no other academic unit in the country has such a breadth and depth of scholars committed to the knowledge and understanding of the human condition and modern society at the end of the 20th century."

Adds Nightingale: "Both colleges have had a strong applied aspect in research and teaching, and this together with the theoretical tradition of College of Social Science and the professional focus of FACS provides us with an opportunity to further strengthen students' potential to have a direct and positive impact on society at large."

The timing couldn't be better. Although two full years in the making — the amalgamation was first proposed by Knight and others during the strategic planning process in 1994/95, and the new college began to take shape in the spring of 1996

See NEW on page 10





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# Guelph, Waterloo, Laurier Launch TRELIS Database

*New automated system will give access to wide range of resources at three campuses*

THE SIZE OF THE U of G Library was effectively tripled last week as Guelph, the University of Waterloo and Wilfrid Laurier University launched TRELIS, the Tri-University Group of Libraries' new combined computer-based information resource system.

The new automated system, which has replaced the older SearchMe library system, will give students and faculty at the three campuses access to a wider range of resources, including computer-based indexes, information at other Web sites and databases around the country and the world.

"We replaced the old system because newer ones were on the market that could link electronic resources directly, offer expanded searching capabilities and take advantage of client-server technologies," says a joint statement issued by the three libraries. "It was time to move into the 21st century."

Named for the type of latticework used to support plants as they grow together, TRELIS symbolizes the partnership of Guelph, Waterloo and Laurier, say officials at the three institutions. U of G chief librarian

Michael Ridley praises the new system and notes how it will improve service for students and faculty at a time when staff levels and budgets at the three libraries have been reduced.

"The main reason we did this was to enhance service to library users," says Ridley. "It really helps us do more with less."

Developed over the past two years, TRELIS can be accessed by a Windows interface on workstations in the libraries or over the University network, with either a Web browser or an ASCII Telnet interface.

More than 7.5 million volumes of materials can be found online using TRELIS, and some 100 gigabytes of information are on the system — that's more than 70,000 floppy disks worth of data. More than 400 users can log on to TRELIS simultaneously. The system, which currently runs off of three Sun Microsystems servers located at the University of Waterloo, was purchased from Endeavor Info Inc., a Chicago-based developer of information and archival software. Previously, U of G used to develop its own library computer systems.

"It is such an enormous system, if we didn't buy it from a software vendor, we would be building it ourselves for years," says Ridley.

He also notes that, unlike a self-built system, Endeavor will offer continued support for years to come.

"When we were shopping for a vendor for the system, we were really looking for a company that was willing to grow with us. Based on the system itself and Endeavor's support, we are looking forward to a long-term relationship with the vendor and an evolution of the TRELIS system."

Ridley admits that although the system was supplied by a vendor, erecting TRELIS was a major project, and moving the abundance of data to the system was only part of the challenge.

"It really has been huge, not just building the system and implementing it, but integrating it, organizationally, and harmonizing the way three very different organizations go about their business."

Extensive staff participation in implementing the system was guided by 12 work teams, involved in everything from data conversion to training staff on how to use the finished project.

Although the system is already up and running, the real test will come in the fall.

"We are planning training sessions for all students and faculty when classes resume," he says. "But it's so user-friendly that we saw students coming to the library and using it without any instruction within minutes of it being launched."

To access TRELIS on the Web, type [www.tug-libraries.on.ca](http://www.tug-libraries.on.ca) into your Web browser.

BY NATHAN MALLETT

## Colleague Project Moves Ahead, Fall Launch Planned

U OF G IS MOVING ahead with its new student information system, Colleague, with full implementation planned for this fall. The need to adopt a new system was identified by the Information Technology Strategy Committee in its review of the University's ability to handle problems anticipated in 2000. Senate received a progress report on the implementation earlier this year; details will be included in the next issue of @Guelph.

In the absence of Colleague project manager Brian Pettigrew, who suffered a mild heart attack last week, Ray Darling, associate registrar in Graduate Programs, will assume responsibility for the project to ensure the implementation process remains on schedule.

He will be supported by the Colleague Management Team and team leaders in the Office of Registrar Services and Communications and

Computing Services.

The management team believes it's important to remain on schedule with the project because U of G is halfway through the current admission cycle using the new system and will be faced with major changes in the admission process agreed to by the Council of Ontario Universities for the 1999 cycle. Guelph must make these changes ahead of time to allow for smoothing out any difficulties before the current SIS program collapses in December 1999.

Darling's duties in Graduate Programs will be assumed in the immediate term by registrar Chuck Cunningham and Prof. Isobel Heathcote, associate dean of graduate studies. Additional staffing in this area is under discussion.

Any questions about Colleague should be directed to Darling at Ext. 3195 or by e-mail to [rayd@registrar.uoguelph.ca](mailto:rayd@registrar.uoguelph.ca).

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**TSS CONFERENCE  
MAY 20 & 21**

The 11th annual Teaching and Learning Innovations Conference sponsored by Teaching Support Services is May 20 and 21 at the OVC Learning Centre. This year's theme is "Teaching and Learning: Making the Link." Related topics include student-centred learning, the development of learning communities and learning theory. Keynote speaker is Erik Meyers of the School of Education at the University of Cape Town in South Africa, who has achieved international recognition for his research on student learning in higher education.

**RECRUITMENT BROCHURE  
EARNS CASE OF GOLD**

A brochure aimed at boosting U of G's profile among U.S. high school students has earned a gold medal from CASE, the Council for the Advancement and Support of Education. *So You Think You Know Canada, Eh?* won one of five gold medals in the category "Best Individual Publication in Student Recruitment." Distributed to 50,000 U.S. high school students, the brochure was featured on the front page of the business section of the *Wall Street Journal* and in the *Chronicle of Higher Education* and the *Globe and Mail*. The publication was co-ordinated by registrar Chuck Cunningham and Registrarial Services, with input from members of the University and U.S. students.

**NOMINEES SOUGHT FOR  
STAFF SEAT ON B OF G**

Board of Governors is calling for nominations to the one staff seat on the board for a three-year term beginning July 1. Candidates must be full-time, permanent, non-teaching employees of the University. Nominations must be submitted by May 25 at 4:30 p.m. to the Board Secretariat on Level 4 of the University Centre.

**ANIMAL-CARE SERVICES  
OPEN HOUSE MAY 14**

Animal-Care Services will hold its annual open house May 14 from noon to 3:30 p.m. The afternoon will feature a guided tour of the Central Animal Facility, presentations and displays, draws and a barbecue to support the United Way. The facility is located on McGilvray Street. Visitors are asked to bring a donation of animal food for the Guelph Humane Society. For more information, visit the Web site [www.uoguelph.ca/ACS](http://www.uoguelph.ca/ACS).

**YADA NAMED FOOD  
SCIENCE CHAIR**

Prof. Rick Yada has been named chair of the Department of Food Science. A faculty member at Guelph since 1984, Yada began a five-year term as chair May 1.

**PICTURES, PLANTS AND POTATO CHIPS**

More than 900 high school students and about 250 secondary school teachers from across southern Ontario attended two recent day-long conferences organized by Admission Services. The 16th annual Guelph Update April 24 attracted high school teachers, guidance counsellors and administrators looking for information about U of G programs and teaching ideas for their classrooms. Top: Michael Ovas of Martingrove Collegiate in Etobicoke gets up close and personal with a plant during a hydroponics session led by botany technician Denise McClellan. Bottom left: Fine art student Jessica Masters demonstrates the art of photo etching as John Niessen of Glendale Secondary School in Hamilton looks on. Bottom right: On May 1, the 19th annual Guelph Interaction conference provided a first look at U of G for many high school students, including Laura Qaqish of Notre Dame Secondary School in Brampton, who learned about the science behind potato chips from Prof. Rick Yada, Food Science.

PHOTOS BY VERN MCGRATH

**PEOPLE****WOMEN OF DISTINCTION  
AWARDS ANNOUNCED**

Prof. Mimi Arighi, Clinical Studies, will receive a 1998 Women of Distinction Award from the YMCA-YWCA of Guelph. Arighi, former head of the Large-Animal Clinic and former director of the Veterinary Teaching Hospital, is being honored for her contributions to science and technology. Retired family studies professor Lila Engberg will receive a Women of Distinction Award in the education, training and development category.

**HISTORY BOOK HONORED**

*Laboring Lives: Work and Workers in 19th-Century Ontario*, a book to which Prof. Terry Crowley, History, contributed the first chapter on rural labor, won the J.J. Talman Award of the Ontario Historical Society, awarded for the best book written over the past three years on the province's history. For the past four years, Crowley has also been editor of the journal *Ontario History*.

**ART HISTORIAN****APPEARS IN CBC SERIES**

Prof. Gerta Moray, Fine Art and Music, recently appeared in the CBC television series *Life and Times of Emily Carr*. Moray also gave a paper titled "Or Shall We Search as the Indian Did? Dilemmas of a Colonial Woman Artist in British Columbia" in a panel on "Wilderness, Modernity and the Northwest Coast" at the College Art Association Annual Conference in Toronto in February.

**IN MEMORIAM**

Dave Clarke, an agricultural assistant in the former departments of animal husbandry and crop science from 1949 to 1985, died April 18. He was 74.

## Centre Six Seating to Expand by 200

*Solarium will enclose external dining terrace north of University Centre*

**T**AKE A GOOD LOOK at those red overhead lights at the north end of the University Centre. A fixture of the UC since the building opened a quarter-century ago, they'll soon be gone as part of an expansion and renovation project in the Centre Six seating area this summer.

The project, set to begin May 11, will involve building a solarium to enclose the existing external dining terrace directly north of the UC, construction of an elevated lounge area and a general facelift of the entire space that will add 200 seats throughout Centre Six. An outdoor patio will occupy part of Branson Plaza adjacent to the new solarium.

No U of G operating money will be used for the project; it will be funded entirely through non-exclusive agreements with the University's food service business partners.

This will be the first substantive renovation of the Centre Six seating area since the UC was built 25 years ago, says Dave Boeckner, director of Hospitality Services. "The hospitality industry generally renovates every seven years," he notes.

Besides enclosing the existing exterior dining terrace and building an elevated lounge (accessible for persons with disabilities), the University will install new seating and new wall fixtures to provide diffuse lighting.

The project begins this spring with the removal of three trees just outside the existing seating area on Branson Plaza; they are expected to do well in other campus locations.

The entire project is intended to provide a number of benefits:

- increase lounge and study space and seating for students and other users;
- improve traffic flow and access for

persons with disabilities;

- improve the University's image and recruitment opportunities;
- attract more conference business to campus; and
- address enrolment increases.

"Sprucing up the University's gateway will help us attract more students, faculty, staff and conference customers," says Boeckner.

An upgraded air-handling system and new overhead lighting to be installed as part of the project are expected to reduce energy and labor costs.

Hospitality Services requested the renovation project last year as part of its five-year capital plan. Following Board of Governors approval, a facilities design company was hired to develop a master plan for the project.

During a consultation process

that started last September, Hospitality Services held focus groups of students, faculty and staff; ran surveys on brand preference and food concepts; held discussions through its advisory committees, a Centre Six renovation planning subcommittee and a Hospitality Services staff and management committee; and met with Executive Group, representatives of the University Centre board, Interhall Council, the University Club executive, graduate lounge management and many student groups.

"We've tried to make the consultation as wide as possible and include as many groups as possible," says Boeckner.

His department will lead a similar consultation process this year to plan renovations proposed next year for the Centre Six food court.

BY ANDREW VOWLES



# IT'S A BIRD, IT'S A PLANE . . .

*It's zoology student Wayne Bezner Kerr taking to the skies to help trumpeter swans fly away home*

By Andrew Vowles

**W**AYNE BEZNER KERR wanted to be a hawk, but fate turned him into a swan instead. Since early last year, the U of G zoology student has been working on a master's project intended to find the best way to teach trumpeter swans to migrate. Bezner Kerr's work may help re-establish a vulnerable species in eastern North America, where until about 150 years ago, white clouds of trumpeter swans would have filled the skies over their traditional migration route between Canada and the southern United States.

Until last year, however, science had taken a back seat to adventure for Bezner Kerr. Enraptured for as long as he could remember with birds and flight, he had a seemingly more straightforward goal in mind: soaring with the hawks. Luckily for him, an engineer friend designed gliders and sail planes. "As a glider pilot, I really tried to be a hawk in my spare time."

After bumping into Ontario sculptor and environmentalist Bill Lishman at an air show, Bezner Kerr got himself hired to help in filming *Fly Away Home*, the movie loosely based on Lishman's earlier success at inducing a flock of Canada geese to follow his ultralight — a kind of streamlined tricycle with wings — from his Toronto farm to nesting grounds in Virginia. Listed in the film's credits as a "goose wrangler," Bezner Kerr played a crucial, albeit unseen, part. He raised the geese from hatchlings, imprinted them on himself to become their surrogate parent and handled the birds on the film set, just outside the view of the lens.

That work led him to Bill Carrick, a documentary filmmaker who had been using speedboats to teach geese to fly just to film the process. It was Carrick who suggested there might be more to this pursuit than spectacular footage.

As with Canada geese and other precocial wildfowl, trumpeter swans need to learn to migrate — it's not inborn. But unlike their ubiquitous distant cousins, trumpeter swans in eastern North America have few role models. With the swans wiped out by hunting for the millinery trade and by human encroachment on their habitat, their signature strident call has been silenced east of the Rockies for most of this century.

They managed to survive in Western Canada, where there are about 20,000 of them. And Ontario is now home to about 150 birds, all descendants of swans brought from the west by the Trumpeter Swan Restoration Project led by a Ministry of Natural Resources biologist. Protected by law, they live in a small



Wayne Bezner Kerr hopes his master's project will help the trumpeter swan — the largest waterfowl species in North America and the rarest swan in the world — learn to migrate along its traditional route between Ontario and the southern United States.

PHOTO BY ANDREW VOWLES

range in southern Ontario, wandering only far enough in winter to find food and shelter in places like Hamilton Harbor and the Toronto waterfront. Key to their long-term survival is learning, or relearning, to migrate on their traditional flyway.

"For some reason, bird migration has always fascinated me," says Bezner Kerr, holding up the phenomenon as one of the supreme "tests" of animal fitness. "There are birds that migrate 9,000 kilometres through completely different ecozones, over mountain chains, across prairies, across deserts, across islands. As a pilot, I have been reluctant to fly from Toronto to Ottawa on a bad day. It completely astounds me that so many different species of birds have found so many different evolutionary pathways to end up at the same goal and to do it so efficiently."

Besides wondering whether he could teach swans to migrate, Bezner Kerr had another question. Did you actually have to imprint the birds as with the movie geese or could you condition them to fly, as you would train a dog to obey?

The distinction is crucial, says his supervisor, Prof. Tom Nudds. Scientists have known for years that birds will attach themselves to whatever stimulus they receive before and after hatching. But although birds that imprint on humans might learn to migrate properly, they may prove inept come mating

age. Having imprinted on humans, they fail to recognize potential mates.

Bezner Kerr wondered whether he could allow the birds to imprint naturally, then take advantage of a subsequent "following tendency" to train the birds with his ultralight. "The birds retain their early knowledge of who they are and who they're supposed to mate with four years down the road, but you can nevertheless induce migration," says Nudds.

Bezner Kerr and his wife, Rachel, a graduate student in the Department of Land Resource Science, have set up the Migratory Bird Research Group to raise funds and equipment for the venture. They initially received \$30,000 from the environmental services department of Falconbridge Ltd. in Sudbury, where Bezner Kerr began his project last spring with two other pilots, a float plane and 10 birds, half of them imprinted on himself and the others imprinted naturally on adult birds. The immediate goal was to teach the swans to wing the roughly 400 miles from Sudbury to Long Point, where they would overwinter and, ideally, return north on their own the following spring.

Although the artificially imprinted cygnets were the first to follow Bezner Kerr off the lake, the naturally imprinted birds eventually surpassed them. Still, by last fall's freeze-up, the swans weren't ready for migration. Moved to a farm in Flamborough, they were forced to overwinter as Papa Swan found himself grounded by a succession of mechanical problems, including a disastrous run-in with a snowbank that clipped his ultralight's wing.

This spring, Bezner Kerr is still shaking his head. He still aims to get in that initial flight to Long Point, but this year's delay has set the swans back, and he thinks he might have to wait until a brand-new flight crew hatches out this spring.

"It's exhausting," Bezner Kerr says of the emotional stress and disappointments of the past few months. Not to mention expensive. Although he receives funding through Nudds's research grant and from what money he raises through his non-profit organization, it's a constant chase for dollars.

Still, there's hope, he says, recalling last fall's promising flights that saw his squadron "effortlessly climbing to 200 to 300 feet, strung out in a loose formation."

How does it feel to be a swan? "It's visual poetry," says Bezner Kerr, borrowing a phrase coined by an artist friend. "It's a kinetic sculpture that's happening all around you. There are times when you almost forget to breathe."

## Perking Up the Soybean Industry

*Food science undergraduate students brew their way to victory in annual soybean contest*

**E**SPRESSOY, a coffee-like beverage developed by two U of G food science students, is this year's big winner in Project SOY — Soybean Opportunities for Youth. This brew of the future, made from 100-per-cent roasted soybeans, netted undergraduates Jennifer Lo and Nicole Lepkowski \$2,500 and first place overall in Project SOY.

Project SOY is a contest that calls on students to find innovative uses and diversified markets for soybeans. Eighteen students from U of G, Ridgeway College, Kemptville College and Alfred College completed 10 projects this year, with the

six winning teams announced at a judging ceremony last month.

Head judge was First Line Seeds president and U of G alumnus Peter Hannam. His company sponsors the contest with the Ontario Federation of Agriculture, the Ontario Soybean Growers Marketing Board and the Agriculture Adaptation Council.

"The calibre of this year's projects was phenomenal," says Hannam. "The completed entries were well-thought-out and professionally done, and many have a legitimate market value."

Project SOY gives students a chance to gain practical skills while

establishing links with the industry — and the opportunity to win prizes of \$2,500, \$1,000 and \$500 in graduate and undergraduate categories.

First-place winner in the graduate category was Valerio Primomo, a master's student in plant agriculture. He developed a soybean-based frozen drink called SoYummy. It comes in an assortment of flavors, is low in fat and has the potential to compete with ice cream and frozen yogurt.

Graduate food science student Min Zhu won second place in this category with SoyStars, a drink that takes after its predecessor, "Orbit." Lingering in apple, strawberry and

peach juices, his edible floatation devices are made from soybeans.

Nutritional sciences student June Dalglish and food science student Jennifer Johnstone captured second place in the undergraduate category with their rich Madagascar Vanilla and Dutch Chocolate soy drinks.

Soybean pasta and Soyburst, a soy beverage, tied for third in the undergraduate category. Other projects included soybean-based beer and a line of body-care products.

"I'm truly impressed with the student creativity and enthusiasm that's being shown for soybeans," says Hannam. "I know that On-

tario's soybean industry is in for a bright future."

And what about the future of Project SOY? President Mordechai Rozanski, guest speaker at the awards presentation, summed it up like this: "I'm confident this initiative will continue to grow. This kind of industry involvement is exactly what we're hoping to see more of as we open the doors for new opportunities through initiatives such as the enhanced partnership with the Ontario Ministry of Agriculture, Food and Rural Affairs."

By JENNY TYE  
OFFICE OF RESEARCH



# Annual support from the Natural Sciences and Engineering Research Council (NSERC)

and the Social Sciences and Humanities Research Council (SSHRC) helps

U of G maintain its position as one of the most research-intensive universities in Canada.

On these pages, @Guelph lists U of G recipients of recently announced NSERC research,

equipment and infrastructure grants and SSHRC grants, as well as researchers

receiving instalments of awards made in previous years.

## 1998/99 NSERC Grants

Prof. Roy Anderson, Zoology, "The Development, Transmission, Systematics, Distribution of Nematode Parasites of Vertebrates."

Prof. Mark Baker, Chemistry and Biochemistry, "Electrochemical Uses of Zeolites in Templating Nanostructures and Catalysis."

Prof. Bob Balahura, Chemistry and Biochemistry, "Kinetics and Mechanisms of Redox Reactions of Co-ordination Complexes and Metalloproteins."

Prof. Jim Ballantyne, Zoology, "Regulation of Mitochondrial Metabolism in Lower Vertebrates and Invertebrates."

Prof. John Barta, Pathobiology, "Host-Parasite Interactions of Apicomplexan Parasites."

Prof. Keith Betteridge, Biomedical Sciences, "The Biology of Early Pregnancy in the Mare."

Prof. Jim Bogart, Zoology, "Evolution and Speciation of Amphibians" and "Freezer for Storage of Tissue Samples."

Prof. Greg Boland, Environmental Biology, "Microbial Ecology of Hypovirulence in Plant Pathogenic Fungi."

Prof. Fred Brauer, Chemistry and Biochemistry, "Bioenergetics, Oxygenation and Regulation of Apoptosis, Necrosis and Regeneration in Rat Liver by in Vivo Magnetic Resonance Imaging."

Prof. Mary Buhr, Animal and Poultry Science, "Modifying Lipids Affects Sperm Function."

Prof. Iain Campbell, "Inner-Shell Atomic Physics and Interdisciplinary Science Using the Guelph Scanning Proton Microprobe."

Prof. Judith Canne-Hilliker, Botany, "Floral Ontogeny, Floral Evolution and Autonomous Self-Pollination in Scrophulariaceae S.L."

Prof. Anthony Clarke, Microbiology, "Structure and Function Relationship of O-Glycosidases."

Prof. Anne Croy, Biomedical Sciences, "Light Microscope and Color Imaging System for Digital Acquisitions and Analysis."

Prof. Roy Danzmann, Zoology, "Evolutionary and Physiological Genetics of Salmonid Fishes."

Prof. Jim Davis, Physics, "Parallel Processor for Molecular Dynamics Simulations."

Prof. John Dutcher, Physics,

"Physics of Polymer Thin Films and Interfaces" and "Diode-Pumped Solid-State Laser for Brillouin Light-Scattering Spectrometer."

Prof. Robert Etches, Animal and Poultry Science, "Fertilization, Imprinting and Derivation of Avian Embryos from Diploid Cells."

Prof. John Pryxell, Zoology, "Spatial Dynamics and the Stability of Terrestrial Mammal Communities."

Prof. Terry Graham, Human Biology and Nutritional Sciences, "Glycogen and Amino Acid Metabolism in Human Muscle."

Prof. Chris Gray, "Theoretical and Computer Simulation Studies in Molecular Physics."

bean Cultivars."

Prof. Tony Hunt, Plant Agriculture, "Analysis and Simulation of the Growth of Field Crops."

Prof. Ken Jeffrey, Physics, "Upgrade to an NMR Spectrometer" (with Prof. Glenn Penner).

Prof. Jan Jofriet, Engineering, "Structural and Functional Design of Silos and Bins for Particulate Solids."

Prof. David Joseph, Chemistry and Biochemistry, "Bioactivation of Mutagens by Recombinant Human P450 Enzymes Expressed in *E. coli*."

Prof. Gabriel Karl, Physics, "Research in Theoretical Sub-Atomic Physics."

Prof. Ken Kasha, Plant Agriculture, "Haploid Production and Gene

and Applications" and "Fields Institute Computing System Upgrade" (with Prof. Anna Lawniczak).

Prof. John Leatherland, Biomedical Sciences, "Waters Alliance Automated LC System: HPLC System."

Prof. Steve Leeson, Animal and Poultry Science, "Avian Compensatory Growth and Development."

Prof. Marc Le Maguer, Food Science, "Simultaneous Solute and Water Movement in Food Materials of Plant Origin."

Prof. Qi Li, Economics, "Application of Edgeworth Expansion in Testing and Estimation of Semiparametric Additive Models."

Prof. Mike Lindinger, Human

Science, "Phospholipids-Protein Interactions in Egg Yolk LDL."

Prof. Ross Nazar, Molecular Biology and Genetics, "Freeze Dryer."

Prof. Satish Negi, Engineering, "A Computerized Database for Bulk Solids Handling Properties."

Prof. Bill Nickling, Geography, "Textural and Surficial Controls on Dust Emission and Transport."

Prof. Richard Oakley, Chemistry and Biochemistry, "Inorganic Heterocyclic Chemistry" and "FTIR Spectrometer."

Prof. Ivan O'Halloran, Land Resource Science, "Soil Phosphorus Variability and Availability in Ontario."

Prof. Gary Parkin, Land Resource Science, "Non-Linear Unsaturated Flow in Layered Sloping Soils."

Prof. Peter Pauls, Plant Agriculture, "Embryogenesis Induction Processes in *B. napus* Microspore Cultures."

Prof. Glenn Penner, Chemistry and Biochemistry, "NMR Studies of Molecular Structure and Dynamics."

Prof. Andrew Peregrine, Pathobiology, "Molecular Basis and Epidemiology of Drug Resistance in Protistan Parasites" and "Bench Centrifuge and Nitrogen Cavitation Device for Research on Drug Resistance in Protistan Parasites."

Prof. Usher Posluszny, Botany, "Developmental Morphology, Environmental Interactions and the Evolution of Aquatic Angiosperms" and "Image Capture and Analysis System" (with Profs. John Greenwood, Brian Husband, John Klironomos and Larry Peterson).

Prof. Ramesh Rudra, Engineering, "Mechanics and Modelling of Nonpoint Source Pollution."

Prof. Praveen Saxena, Plant Agriculture, "Regulatory Role of Thidiazuron in Plant Morphogenesis."

Prof. Bruce Sells, Molecular Biology and Genetics, "Control of Ribosome Biogenesis."

Prof. Bob Sheath, Botany, "Stream Macroalgal Phylogeny, Systematics, Biogeography and Ecology" and "Ultra Low Freezer for Storage of DNA Samples" (with Prof. Brian Husband).

Prof. R.S. Singh, Mathematics and Statistics, "Monotone Empirical

## Fishing for Genetic Information

"How's your rainbow trout?" When the waiter asks you that question sometime early in the next century, you might pause to admire that succulent morsel on your fork and think of Prof. Roy Danzmann, Zoology.

Helping tomorrow's fish farmers land a more tasty "catch" is one of the ultimate applications of Danzmann's research and perhaps less of a mouthful than the title of his recent grant proposal to NSERC — "Evolutionary and Physiological Genetics of Salmonid Fishes." The four-year project garnered an 80-per-cent jump in his annual funding, which represents the single largest increase in the College of Biological Science in this year's granting awards competition.

What accounts for the increase? Danzmann points to his international research collaborations and to the fact that his project straddles basic and applied research of interest to molecular geneticists and aquaculturists alike.

He is constructing a gene map for rainbow trout to identify stretches of DNA controlling such economically

important traits as rates of growth and maturation, spawning time and temperature tolerance. Just as medical scientists hope the current project to map the human genome will enable them to zero in on disease-causing genes, Danzmann says that locating these trout genes — actually so-called DNA markers that lie near the pertinent genes — will allow him and others to study how they interact in often complex ways to affect survival.

That kind of information is critical to fish farmers producing rainbow trout — a \$65-million industry in Ontario. Knowing fish pedigrees and using selective breeding, aquaculturists may extend a female's egg production period, for example, or experiment to find the right balance between rapid growth but slower maturation.

Besides uncovering markers here at Guelph, Danzmann will also work with material sent by colleagues in Japan and Europe. About 175 markers have been uncovered in rainbow trout; he expects to double that number within four years.

Prof. Tony Hayes, Pathobiology, "Plasma Lectins and Innate Resistance to Bacterial Disease."

Prof. Gordon Hayward, Engineering, "Bulk Wave Acoustic Chemical and Biochemical Sensors."

Prof. Paul Hebert, Zoology, "Thermal Cycler for PCR."

Prof. Bryan Henry, Chemistry and Biochemistry, "Argon Ion Laser Tube Rebuild."

Prof. J.J. Hubert, Mathematics and Statistics, "Bioassay and Quantitative Risk Assessment."

Prof. David Hume, Plant Agriculture, "Stress Tolerance and Sources of N in Old and New Soy-

Transfer in Cereals."

Prof. Bev Kay, Land Resource Science, "The Quality of Soil Structure and Water Regimes for the Growth and Development of Corn."

Prof. Peter Kevan, Environmental Biology, "Autecological and Synecological Mutualisms in Pollination: Floral Features and Pollinator Senses, Aspects of Plant Breeding Systems."

Prof. Stefan Kremer, Computing and Information Science, "Dynamic Recurrent Networks for Spatio-Temporal Pattern Recognition."

Prof. Bill Langford, Mathematics and Statistics, "Bifurcation Theory

Biology and Nutritional Sciences, "Skeletal Muscle and Whole-Body Ion Regulation."

Prof. Jack Lipkowski, Chemistry and Biochemistry, "Power Supplies and Signal Discriminators for IGLET 9-Element Ge X-ray Fluorescence Detector."

Prof. Reggie Lo, Microbiology, "Studies on Capsule Biosynthesis and Iron Acquisition in *Pasteurella haemolytica* A1."

Prof. Rodney Merrill, Chemistry and Biochemistry, "Refrigerated Micro- and Table-Top Centrifuges" and "PTI Fluorescence Spectrometer Upgrade."



Bayes Estimations and Tests in Linear Models, Exponential and Non-Exponential Family" and "Nonparametric Functional."

Prof. Jim Squires, Animal and Poultry Science, "Metabolism of Androstene and Skatole in Pigs."

Prof. Donald Sullivan, Physics, "Statistical Mechanics of Inhomogeneous Complex Liquids."

Prof. John Sutton, Environmental Biology, "Gliocladium Roseum: Relationships with Plants and Antagonism of Pathogens."

Prof. Clarence Swanton, Plant Agriculture, "Mechanisms Influencing the Population Dynamics of Weeds."

Prof. François Tardif, Plant Agriculture, "Factors Regulating the Evo-

lution of Herbicide Resistance in Plants."

Prof. Daniel Thomas, Chemistry and Biochemistry, "Studies of Interfacial Electronic States."

Prof. Matthijs Tollenaar, Plant Agriculture, "Association Between Plant-to-Plant Variability, Competitive Ability and Genetic Improvement in Maize."

Prof. Jack Trevors, Environmental Biology, "Microbial Ecology: Bacterial Activity and Survival in Soils."

Prof. Alan Wildeman, Molecular Biology and Genetics, "Transcriptional Control of Yeast Genes by General Regulatory Factors."

Prof. Dave Wolyn, Plant Agriculture, "Genetic and Molecular Analyses of Petaloid Cytoplasmic Male

Sterility in Carrot."

Prof. Pat Wright, Zoology, "Urea Metabolism and Excretion in Fish."

Prof. Rick Yada, Food Science, "High-Speed Refrigerated Bench-Top Centrifuge."

Prof. Richard Zytner, Engineering, "Environmental Control for Volatilization of Gasoline from Soil."

## NSERC Grants in Progress

### ANIMAL & POULTRY SCIENCE

Prof. Jock Buchanan-Smith, "Towards a Mechanistic Description of Energy Metabolism in Growing Ruminants."

Prof. John Cant, "Mammary Metabolic Responses to Dietary Amino Acid Imbalances in Lactating Dairy Cows."

Prof. Kees De Lange, "Metabolic Costs Associated with Gut Protein Losses in Growing Pigs."

Prof. Jack Dekkers, "Optimization of Selection Strategies over Multiple Generations."

Prof. Ian Duncan, "An Investigation into the Behavioral Needs of Agricultural Animals."

Prof. John Gibson, "Use of Anonymous Genetic Markers in Genetic Improvement and Conservation of Livestock."

Prof. Gordon King, "Role of Uterine Immune Cells in Pregnancy."

Prof. Brian McBride, "Regulation of Background Energy Costs in Domestic Animals."

Prof. Trevor Smith, "Efficacy of Putrescine-Rich Feedstuffs in Overcoming Feed-Borne Toxicants."

Prof. John Walton, "Endocrine Regulation of Early Pregnancy in Cattle."

Prof. Jim Wilton, "Optimizing Genetic Change in Product Value and Production Efficiency."

### BIOMEDICAL SCIENCES

Prof. P.K. Basur, "Factors Controlling the Function and Fate of Germ Cells in Domestic Animals."

Prof. Anne Croy, "Functions of Uterine Natural Killer Cells During Pregnancy."

Prof. Patricia Gentry, "Regulation of Ovarian Follicular Development by Hemostatic Proteins Synthesized Within the Follicle."

Karen Goodrowe, "Understanding Canine Gamete Physiology for Population Management."

Prof. Larry Grovum, "Mechanisms Controlling Food Intake in Sheep — Direct and Indirect Factors."

Prof. Ann Hahnel, "Alkaline Phosphatases in Bovine Preimplantation Embryos."

Prof. Allan King, "Sex Chromosomes, Influenced Development in Preimplantation Embryos."

Prof. Gordon Kirby, "Investigation of the Post-Transcriptional Control of Cyp2a5 Expression as a Model Stress-Inducible Gene."

Prof. Jonathan LaMarre, "Novel Roles for Proteinases and Proteinase Inhibitors in Ovarian Regulation."

Prof. John Leatherland, "Endocrine Control of Growth and Energy

Partitioning in Fish at Different Stages of Ontogeny."

Prof. James Raeside, "Endocrinology of the Testis."

Prof. Alastair Summerlee, "The Central Alastair of Relaxin."

Prof. Jeff Thomason, "Structural Mechanics in Mammals."

### CHEMISTRY & BIOCHEMISTRY

Prof. Elmer Alyea, "Metal Vapor Syntheses and Multinuclear NMR Characterization of Transition Metal Compounds."

Prof. Nigel Bunce, "Chemistry and Toxicology of Chlorinated Aromatic Compounds."

Fluorescence Studies of the Colicin EI Channel Peptide."

Prof. Adrian Schwan, "Synthetic and Mechanistic Organoheteroatom Chemistry."

Prof. Frances Sharom, "Behavior and Interactions of GPI-Anchored Membrane Proteins."

## Carrot Mutation Under Study

**P**ROF. DAVE WOLYN, Plant Agriculture, is studying a mutation in the carrot plant to learn how genetic factors in the cytoplasm affect flower development and organ differentiation.

Wolyn's research involves a homeotic mutation in the carrot plant, which causes male sterility. This special type of mutation causes the carrot flower, which normally has five petals and five stamens, to develop 10 petals and no stamens. The resulting plant does not produce pollen, making it male-sterile while remaining female-fertile. The transfer of pollen from a fertile breeding line to one that is male-sterile results in hybrid seed, which is fundamental to plant breeding and agricultural applications.

Evidence suggests that the genetic determinant for

male sterility in the carrot is not governed by traditional laws of Mendelian inheritance, but rather factors in the cytoplasm of mitochondrial origin. Curiously, nuclear genes can interact with the cytoplasmic factor to restore fertility.

"We believe that the mitochondria are involved," says Wolyn, "but getting to the heart of the question is slow, and we are plugging away at it piece by piece."

Wolyn's recently awarded NSERC research grant for the project "Genetic and Molecular Analyses of Petaloid Cytoplasmic Male Sterility in Carrot" will build on previous research. The project will intensively map the mitochondrial genome and conduct a series of expression studies.

### BOTANY

Prof. Derek Bewley, "Control Processes in Germination and Reserve Mobilization in Seeds."

Prof. John Greenwood, "Vacuolar Cysteine Proteinases and Programmed Cell Death in *Vicia FFA*."

Prof. Brian Husband, "Evolutionary Dynamics of Polyploidy in Natural Plant Populations."

Prof. John Klironomos, "Functional Diversity Among Arbuscular Mycorrhizae."

Prof. Doug Larson, "Ecology of Cliff Ecosystems."

Prof. Larry Peterson, "Interactions Between Plants and Mycorrhizal Fungi."

Prof. Michael Cocivera, "Effect of Dopants on the Energy and Density of Subband Gap States in Thin Film Semiconductors."

Prof. John Goddard, "Quantum Chemical Predictions of Structures, Spectra and Reactivities."

Prof. Saul Goldman, "Equilibrium Properties of Fluids and Spectroscopic and Transport Properties of Simple Species in Cavities and Channels."

Prof. Bryan Henry, "Experimental and Theoretical Investigations of Highly Vibrationally Excited Molecules."

Prof. Gordon Lange, "Synthesis of Natural Products."

Prof. Nick Westwood, "Electronic and Geometric Structures of Small Unstable Molecules by Experiment and Theory; Applications of Single and Multiphoton Ionization."

### CLINICAL STUDIES

Prof. Ed Janzen, "ESR and MRI Studies of Chemical Toxicology."

### COMPUTING & INFORMATION SCIENCE

Prof. Dilip Banerji, "Retargetable Code Generation and Rapid Prototyping."

Prof. David Chiu, "Pattern Analysis and Discovery Algorithms."

## Modelling the Real World

**P**ROF. GORDON HINES, Mathematics and Statistics, is studying the effects of variability on models for biological populations with support from a four-year NSERC grant.

Animal behavioralists often use models of biological populations to explain why organisms or groups of organisms (schools of fish, swarms of bees, herds of buffalo, etc.) behave the way they do. Because the models are often simplified facsimiles of the real world, they are inherently limited and must ignore some variables (such as climatic phenomenon and genetics) that are part of the real-world environments they are designed to represent.

But does this simplification of a model make it unrel-

iable? If so, does this skew our understanding of the real world we gain based on our study of the models? That's what Hines wonders and is using math and statistics to try to find out.

By factoring "wild card" variables into simplified model worlds, he explores the power and limitations of existing models. "Researchers who use models often look at variability as the enemy — it messes up the work," he says. "Instead, it should be recognized as an important aspect to be reckoned with."

Hines says his study will examine the soundness of practices currently used to understand biology.

Prof. Wilf Rauser, "Metal Binding in Plants: Role in Stress Response and Metal Detoxification."

Prof. Richard Reader, "Mechanisms Regulating Plant Population Abundance."

Prof. Jacek Lipkowsky, "Ionic Adsorption at Metal Electrodes."

Prof. Dev Mangroo, "Nucleocytoplasmic Export of tRNA in Yeast."

Prof. Alan Mellors, "Novel Enzymes of Pathogenic Organisms."

Prof. Rodney Merrill, "Intrinsic

Prof. Eleanor Chu, "Parallel Matrix Technology and Object-Oriented Sparse Matrix Technology."

Prof. Innes Mackenzie, "Advanced Interfaces for Mobile Computers."

### ENVIRONMENTAL BIOLOGY

Prof. Austin Fletcher, "The Biochemical and Molecular Basis of Paclobutrazol-Induced Stress Tolerance in Wheat."

Prof. Paul Goodwin, "Molecular Basis of Plant-Microbe Interactions."

Prof. Chris Hall, "Molecular and Biochemical Characterization of Auxinic-Herbicide-Resistant Biotypes of Wild Mustard."

Prof. Bob Hall, "Protection and Enhanced Disease Control in Plants."

Prof. Steven Marshall, "Biosystematics of Sphaeroceridae and Related Diptera."

Prof. John Sutton, "Gliocladium Roseum: Relationships with Plants and Antagonism of Pathogens."



## FOOD SCIENCE

Prof. Doug Goff, "Food Materials at Subzero Temperatures."

Prof. Robert Lencki, "Understanding Concentration Polarization Phenomena During Membrane Filtration of Biomolecules."

Prof. Alex Marangoni, "The Relationship Between Fat Rheological Properties and the Microstructure of the Fat Crystal Network."

Prof. Heidi Schraft, "Impact of Microbial Biofilms on Safety and Shelf Life of Meat and Meat Products."

Prof. Marvin Tung, "Rheological Studies of Structured Food Systems."

Prof. Rick Yada, "Structure-Function Relationships of Food-Related Proteins: Aspartic Proteinases."

## GEOGRAPHY

Prof. Robin Davidson-Arnott, "Sedimentation and Morphodynamics of a Temperate Macro-Tidal Salt Marsh, Bay of Fundy."

Prof. Ray Kostashuk, "Sedimentary Processes in Estuaries."

## HUMAN BIOLOGY & NUTRITIONAL SCIENCES

Prof. Jack Barclay, "Endothelial-Skeletal Muscle Interactions and Their Role in Contractility and Blood Flow."

Prof. Bill Bettger, "Purification and Characterization of Erythrocyte Membrane Alkaline Phosphatase Activity in Humans and Swine."

Prof. John Brooke, "Sensory Gain Modulation for Motor Tasks."

Prof. Bruce Holub, "Nutritional Regulation of Phospholipid Metabolism in the Rodent Kidney."

Prof. Jim Kirkland, "The Role of Elongation Factor 2 in the Regulation of Protein Synthesis During Fever."

Prof. Kelly Meckling-Gill, "Regulation of Nucleoside Transport During Myeloid Differentiation of Acute Promyelocytic NB4 Cells."

Prof. Lawrence Spriet, "Metabolic Regulation of Carbohydrate and Fat Interaction in Skeletal Muscle."

Prof. Bill Woodward, "Immunobiology of Protein-Energy Malnutrition."

## LAND RESOURCE SCIENCE

Prof. Eric Beauchamp, "Nitrous Oxide Production in Agricultural Soils."

Prof. Michael Brookfield, "Orogenesis and Basin Development."

Prof. David Elrick, "Transport Phenomena in Natural Porous Media."

Prof. Les Evans, "Modelling the Soil Chemistry of the Toxic Elements: Arsenic, Antimony and Selenium."

Prof. Terry Gillespie, "Reducing Oxidant Smog Potential by Selection of Urban and Rural Tree Species."

Prof. Bev Hale, "Mechanistic Bases for Differential Cadmium Accumulation in Durum Wheat Cultivars."

Prof. Paul Martini, "Sediments of Non-Glacial Cold-Climate Environments, and Paleosols."

Prof. Ray McBride, "Pedotechnological Characterization of Ontario Soils."

Prof. Richard Protz, "Quantita-

tive Spatial Analysis of Pedofeatures."

Prof. George Thurtell, "Atmospheric Transport Theory and Trace Gas Measurements Using Diode Laser Analyzers."

Prof. Paul Voroney, "Soil Man-

Analysis and Tomography."

Prof. Jin Huang, "Estimation and Characterization in Type II Censored Data."

Prof. Peter Kim, "Statistical Inverse Problems on Riemannian Manifolds."

of Cellulose by Fibrobacter Succinogenes."

Prof. Peter Krell, "Baculovirus DNA Replication."

Prof. Chris Whitfield, "Structure and Function of Bacterial Glycosyl Transferases."

teractions."

Prof. Steven Rothstein, "Studies on Self-Incompatibility in Brassica."

## PATHOBIOLOGY

Prof. Mark Baker, "Molecular Requirements for Immunoglobulin Gene Function."

Prof. Aggie Fernando, "Developmental Molecular Biology and Host Cell-Parasite Interaction in Eimeria."

Prof. Carlton Gyles, "Verotoxinogenic *Escherichia coli* in Disease."

Prof. Azad Kaushik, "Comparative Molecular Aspects of Immunoglobulin Genes."

Prof. Janet MacInnes, "Regulation of Gene Expression in Pasteurellaceae."

Prof. Bonnie Mallard, "Biological and Genetic Regulation of Immune-Endocrine Interactions During the Peripartum Period of Dairy Cattle."

Prof. John Prescott, "Immunity and Virulence in *Rhodococcus equi* Infection" (with Prof. Julie Yager).

Prof. Pat Shewen, "Host-Parasite Interaction in Bovine Pneumonic Pasteurellosis."

Prof. Bruce Wilkie, "Genetic Control of Immune Response and Disease Resistance in Pigs."

## PHYSICS

Prof. Bob Brooks, "Spectroscopy of Simple Molecules at Cryogenic Temperatures" (with Prof. Jim Hunt).

Prof. Jim Davis, "Structure and Dynamics of Membrane Lipids and Peptides and Their Interactions."

Prof. Peter Egelstaff, "Structure and Dynamics of Amorphous and Fluid Materials."

Prof. Ross Hallett, "Light and Neutron Scattering from Vesicle and Micelle Systems."

Prof. Ken Jeffrey, "Studies of Molecular Conformation, Structure and Dynamics in Soft Condensed Matter: Biomembranes, Polymers and Glasses."

Prof. Jimmy Law, "Theoretical Studies in Quantum, Sub-Atomic and Atomic Physics."

Prof. Elisabeth Nicol, "Theoretical Investigations in Superconductivity."

Prof. Eric Poisson, "Gravitational-Wave Generation and Radiation Reaction in Compact Binary Systems."

Prof. George Renninger, "Modulation of Photoreceptor Ion Conductances by Efferent Neurotransmitters."

Prof. John Simpson, "Computer Workstation for SNO Data Analysis" (with Profs. Jimmy Law and Robin Ollerhead).

Prof. Jim Stevens, "The Study of Molecular Relaxations and Ionic Conduction in Polymer Salt Electrolytes with Industrial Applications."

## PLANT AGRICULTURE

Prof. Larry Erickson, "Structure, Expression and Function of Pollen-Specific Genes in Alfalfa."

Prof. Bernard Grodzinski, "Photosynthesis, Photorespiration and Partitioning in Morphological and Biochemical Mutants."

Prof. Barry Shelp, "Significance and Regulation of GABA Shunt in Plants."

Prof. Judith Strommer, "Dissecting the Relationship Between Adh

# System a Boost for Aquatic Research

**C**OULD THYROID LESIONS in several species of Lake Ontario fish also be an environmental health warning to humans and other vertebrate living near the Great Lakes?

Prof. John Leatherland, chair of the Department of Biomedical Sciences, is counting on a new high-performance liquid chromatography (HPLC) system purchased with an NSERC equipment grant to provide some of the answers.

Leatherland's study of the actions of PCBs, dioxins and pesticides on fish embryos has led him to theorize that as embryos develop, harmful agents may be interfering with the embryo's attempts to control its own environment by regulating and eliminating some dangerous but naturally occurring hormones. The result is that as the fish mature, mutations appear.

"We suspect that problems in development may be attributed to embryos being unable to control their endocrine environment," he says. "We think the hormone environment of the embryo affects embryo development, and not just of fish, but of every vertebrate."

As to the possible effects on humans, he points to hormone deficiency in early human development causing

cretinism.

Understanding where the human-made pollutants fit in is actually the second part of a two-part question. First, Leatherland must understand how hormones are regulated in the embryo under normal conditions. "This is getting the basic biology sorted out first," he notes.

The new HPLC system will replace an existing chromatography system that is 16 years old. Instead of being tied to fixed wavelengths as with the current equipment, the new system will allow Leatherland's laboratory to use a range of wavelengths and obtain three-dimensional pattern to separate hormones produced by embryos, a capability unavailable with the existing system.

He will use the new HPLC system to study embryos exposed to DDT under lab conditions. Fish embryos are used in this research as a model because they are available in large numbers, are easily manipulated under lab conditions, have a lengthy development cycle, are easy to view, and make for a sensitive, informative model.

Leatherland is excited by the research. "This will be a basic tool of investigation, a cell biology problem and a problem of early development, applicable to a range of species."

agement and Cropping Effects on the Formation of Stabilized Soil Organic Matter."

Prof. Claudia Wagner-Riddle, "Fluxes of Nitrogenous Gases (NH<sub>3</sub>, NO, NO<sub>2</sub>, N<sub>2</sub>O and N<sub>2</sub>) from Agriculture."

## MATHEMATICS & STATISTICS

Prof. Brian Allen, "Modelling Stochastic Dependence in Binary Responses."

Prof. Anna Lawniczak, "Pattern Formation in Reaction-Transport Systems."

Prof. George Leibbrandt, "Multi-Loop Calculations in Quantum Chromodynamics and the Electroweak Theory."

Prof. Hoshang Pesotan, "Algebraic and Combinatorial Aspects of Factorial Design."

Prof. Bill Smith, "Macroscopic and Molecular-Based Theory and

Prof. Janet Wood, "Osmosensing and Osmoregulatory Solute Accumulation Mediated by Compatible Solute Transporter Prop of *Escherichia coli*."

## MOLECULAR BIOLOGY & GENETICS

Prof. Jnanankur Bag, "Regulation of Troponin C Gene Expression."

Prof. George Harauz, "Structural

# Studying the Woman Who Saved the Children

**E**GLINTYNE JEBB founded one of the most successful international charities — the Save the Children Fund — and wrote the League of Nations Declaration of the Rights of the Child, yet she is surprisingly unknown as a British historical figure. Prof. Linda Mahood, History, plans to publish a biography of Jebb as part of a three-year research project that will also document the establishment and growth of the Save the Children Fund from 1919 to 1960.

Born into the minor English aristocracy at the turn of the last century, Jebb was expected to devote time to charitable work, but her devotion to underprivileged children and her unorthodox fund-raising methods made her a true pioneer in international children's aid. The Save the Children Fund was the first children's charity run as a business rather than an extension of an organ-

ized religion. Jebb insisted the charity be non-sectarian and anti-racist, a policy that brought political disfavor when it began to "save the children" of Bolsheviks in Eastern Europe, says Mahood.

Jebb's was also the first charity to employ professional fund raisers and journalists, who travelled into disadvantaged areas to document on film the plight of starving children. The fund advertised and marketed itself like any business, says Mahood, and it pioneered the idea of children helping children when it went into British schools and established the Children's League of Pity.

With funding from SSHRC over the next three years, Mahood's research will provide opportunities for a master's student and several undergraduate research assistants to investigate the first Canadian branches of the Save the Children Fund.

Prof. Edward Carter, "Multivariate Bioassay."

Prof. Anthony Desmond, "Estimating Functions and Predictive Inference with Applications in Biostatistics and Geostatistics."

Prof. Pal Fischer, "Small Sets, Iteration and Chaos."

Prof. Rod Gentry, "Enzyme Kinetics, Blood Coagulation, Tissue Factor, Flow Reactors, Mathematical Models, Simulations."

Prof. Gordon Hines, "Effects of Variability in Models of Biological Populations."

Prof. John Holbrook, "Matrix

Applications of Chemical Reaction and Phase Equilibria."

## MICROBIOLOGY

Prof. Terry Beveridge, "Bacterial Surface Sites Responsible for Metal Binding and Fine-Grained Mineral Development" and "NSERC MFA to Cover Service Contracts for Microscopes in the NSERC Guelph Regional Stem Facility."

Prof. Peter Dobos, "Gene Expression of Birnaviruses."

Prof. Cecil Forsberg, "The Role of Cell Surface Proteins and Cellulase Enzymes in the Biodegradation

Biology of Eukaryotic Nucleoprotein Complexes."

Prof. Art Hilliker, "Genetic Studies in *Drosophila melanogaster*."

Prof. Benjamin Lu, "Meiotic Systems of the Fungus *Coprinus* and Neurospora and Genetic Recombination."

Prof. Ross Nazar, "Structure and Biosynthesis of the Eukaryotic Ribosome."

Prof. John Phillips, "Molecular Genetic Analyses of Reactive Oxygen Metabolism in *Drosophila*."

Prof. Jane Robb, "Cell and Molecular Biology of Host-Parasite In-



Gene Expression and Hypoxic Tolerance."

Prof. Alan Sullivan, "Genetics of Yield Potential in *Fragaria* Species."

#### POPULATION MEDICINE

Prof. Mohamed Shoukri, "Parametric Inference of Frailty Models for Multivariate Survival Data with Applications to Correlated Ages at Onset."

#### PSYCHOLOGY

Prof. Harvey Marmurek, "Identification Units in Visual Word

Processing."

Prof. Barbara Morrongiello, "Infants' Perception of Relations Between Audible and Visible Properties of Bimodal Events."

Prof. Michael Peters, "Lateralization in Motor Control."

#### ZOOLOGY

Prof. Bill Beamish, "Ecophysiology of Cyclostome and Teleost Fishes."

Prof. Elizabeth Boulding, "Genetic and Demographic Responses of Gastropod Populations to an In-

vasion of Predators."

Prof. Ron Brooks, "Variation in Life-History Traits of Reptiles and Amphibians."

Prof. Teresa Crease, "Evolutionary Genetics of Cyclic and Obligate Parthenogenesis."

Prof. Moira Ferguson, "Evolutionary Genetics of Fishes."

Prof. David Gaskin, "Population Structure, Ecology and Distribution with Special Reference to Management and Conservation of the Cetacea."

Prof. Paul Hebert, "Population

Biology of Aquatic Organisms."

Prof. David Lavigne, "Aspects of Pinniped Bioenergetics."

Prof. Denis Lynn, "Phylogeny and Ecology of Ciliated Protozoa."

Prof. Gerry Mackie, "Mechanisms for Rejuvenating Native Populations of Bivalves Impacted by Exotic Invaders like Zebra Mussels."

Prof. David Noakes, "Ontogeny and Social Behavior of Fishes."

Prof. Tom Nudds, "Experimental Community Ecology."

Prof. John Roff, "Plankton Community Structure, Energy Flows and

New Growth Rate Methodologies."

Prof. Steve Scadding, "Retinoic Acid and Amphibian Limb Regeneration."

Prof. Donald Stevens, "Comparative Physiology of Muscle and Exercise."

Prof. Glen Van Der Kraak, "Multifactorial Regulation of Ovarian Function in Fish."

Prof. Patrick Woo, "Cryptobia and Cryptobiosis in Fish."

Prof. Peter Yodzis, "Theoretical Population and Community Ecology."

## SSHRC Grants

### NEW GRANTS

Prof. Gerald Adams, Family Relations and Applied Nutrition, "Family Influences on Children's Academic Achievement and Social Adjustment" (with Prof. Bruce Ryan).

Prof. Diana Brydon, Literatures and Performance Studies in English, "Postcolonialism: The Critical Heritage."

Prof. Bram Cadsby, Economics, "Why Do Shareholders Sell Either All or None of Their Shares in Response to a Tender Offer? An Experimental Investigation."

Prof. Louis Christofides, Economics, "Empirical Investigations of Labor Market Issues."

Prof. Qi Li, Economics, "Semi-Parametric Estimation and Testing of Financial and Frontier Econometric Models."

Prof. Rob De Loë, Geography,

"An Assessment of Ground-Water Management in Ontario" (with Prof. Reid Kreutzweiser).

Prof. Richard Kuhn, Geography, "An Analysis and Evaluation of Siting Approaches and Management Strategies for Nuclear Fuel Waste in Canada."

Prof. Ric Knowles, Literatures and Performance Studies in English, "Reading the Material Theatre in the Contemporary English-Speaking World."

Prof. Linda Mahood, History, "International Children's Aid: The Save the Children Fund, 1919 to 1960."

Prof. Mary Rubio, Literatures and Performance Studies in English, "Preparation and Publication of the Selected Journals of L.M. Montgomery: Vol. 14 (1929 to 1935)" (with professor emerita Elizabeth Waterston).

### CONTINUING

Prof. William Christian, Political Science, "Biography of Sir George Parkin."

Prof. Mary Cyr, Fine Art and Music, "The Cantatas of Rameau and Bernier: Chronology, Style and Performance."

Prof. Kerry Daly, Family Relations and Applied Nutrition, "The Meanings and Negotiations of Time in Families."

Prof. Serge Desmarais, Psychology, "Gender and Perceived Income Entitlement: Analyses of Cross-National Survey Data and Field Study Interviews."

Prof. Mary Ann Evans, Psychology, "Parental Beliefs, Behavioral Connection and Child Reading Outcomes."

Prof. Karen Finlay, Consumer Studies, "Absence of Communality: Influence on Retail Buying Behav-

ior."

Prof. Michael Hoy, Economics, "Measurement of Income Inequality: Inequality and Public Policy: Impact of Incomplete Property Rights on Local Public Good Provision in Third."

Prof. Belinda Leach, Sociology and Anthropology, "Marianne's Park: a Project in Cultural Memory" (with Profs. Christine Bold and Ric Knowles).

Prof. Barbara Morrongiello, Psychology, "Influences on Children's Risk Taking and Parent Decisions About Safety Education."

Prof. Lynn McDonald, "Collected Works of Florence Nightingale" (with Prof. O.P. Dwivedi).

Prof. Susan Pfeiffer, "Behavior and Biological Relationships of Early Hunter-Gatherers of Southern Africa."

Prof. Michael Ruse, Philosophy, "Evolutionary Biology and Values."

Prof. Asha Sadanand, Economics, "Full Information Bargaining with Outside Options and Production."

Prof. Barry Smit, Geography, "Agriculture in a Changing Environment."

Prof. Thanasis Stengos, Economics, "Estimation and Inference in Semiparametric Models with Generated Regressors."

Prof. Jean Turner, Family Relations and Applied Nutrition, "Central American Refugees in Toronto."

Prof. Andrew Winslow, "The Tale of Two Communities: Rural Manufacturing-Based Communities and Livelihoods in an Era of Global Restructuring" (with Prof. Belinda Leach).

Prof. Linda Wood, Psychology, "Discourses of Child Sexual Abuse."

Prof. Dan Yarmey, Psychology, "Speaker Identification and Eyewitness Testimony."

## Geographer Lends Voice of Scholarly Research to Debate on Atomic Waste Siting

RATHER THAN MOUNTAINS or archipelagos, geography professor Richard Kuhn deals with a movable but unpopular landscape: atomic waste. "It is quintessentially a geography problem — where to put something," he says.

Kuhn, who just received a four-year SSHRC grant for his research, says he became fascinated with the atomic waste siting process because "the debate is so dichotomous. You have the nuclear power industry on one side and those opposed to it on the other."

Although in the narrowest sense, the focus of Kuhn's research is geography, in broader terms, his chief accomplishment has been to lend a voice of dispassionate and scholarly research to a debate that is on all sides often inflamed and misinformed. But he stays out of the politics. "I come down the middle; I don't take sides. I view my role as studying the process of decision making."

In Canada, there is currently only one method for disposing of nuclear waste — burying it underground in the plutonic rock formations of the Canadian Shield. Policy makers call it the "geologic option." Although it's a solution, if not a permanent or necessarily foolproof one, it wasn't the only consideration.

Kuhn discovered that the trick to nuclear waste disposal is not technological feasibility, but society's concerns. "The geologic option is the best on the table, but there is no support from within society for this. So grinding down this process are not the technological barriers, but the social implications of siting."

Kuhn has found that fears of nuclear waste extend far beyond backyards and town limits. "Where to dispose of high-level nuclear waste, used fuel bundles, is not a community issue but a regional issue. Risks are perceived beyond any single community. They extend to entire regions."

Kuhn attributes this to "the dread factor. The level of fear among the public is very high — people don't want nuclear fuel waste anywhere near them."

After years of skepticism, some key decision makers have finally come around to his way of thinking. In March, the federal government's Canadian Environmental Assessment Agency released the findings of its long-term nuclear fuel waste panel, a panel Kuhn made presentations to several times and that cited his research. The report concluded that Atomic Energy of Canada's concept for burying nuclear waste deep in the rock of the Canadian Shield had been demonstrated from a technical

perspective, but not a social perspective, that it lacked broad public support.

With his SSHRC grant, Kuhn is now set to take the next step — to study and improve on existing siting methods and processes of environmental impact assessments, and to extend his research to include not only Canada, but also comparative processes in Sweden and the United Kingdom.

The first part of his study will involve looking at the Canadian context of siting and management of the waste, then coming up with a regional strategy for managing this. Second, he will undertake a comparative analysis with colleagues in Sweden and the United Kingdom to come up with common workable siting strategies.

The final part will involve amending the strategy developed to see how it works in practice, with the ultimate aim being to develop an evolving siting protocol, one that can be used to consult with communities, First Nations, community and stakeholder groups, and the nuclear power agencies and operators. A similar protocol will be developed for Kuhn's two European partners as well.

### Summer Schedule

During the spring and summer, @Guelph will publish May 20, June 3 and 17, July 2 and Aug. 5. Copy deadline is one week before publication.

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# CONSCIENCE IN THE JURY ROOM

*"There are sometimes good reasons for holding that jurors morally ought to set aside the law."*

BY WILLIAM HUGHES

**I**MAGINE YOU'RE A JUROR in a trial where the evidence clearly shows the accused has committed an illegal act, but where you believe that punishing the accused would be unjust. What would you do? On the one hand, the judge has explained that your job is not to debate the merits of the law, but only to decide whether the evidence shows beyond a reasonable doubt that the accused has violated the law. On the other hand, your conscience says that punishing the accused would be unjust.

When a jury refuses to follow the law in such cases, it is deemed to have "nullified" the law. Jury nullification is not new; throughout our legal history, jurors have occasionally refused to follow the law when they believed the law was unjust. The most famous English case occurred in 1670 when William Penn was charged with conducting an illegal assembly by preaching the new Quaker religion. The jury, despite intense pressure from the court, found Penn not guilty. In 19th-century England, juries began to refuse to convict anyone charged with theft because the prescribed punishment was hanging. In Canada in the early 1980s, four successive juries refused to convict Dr. Henry Morgentaler of performing illegal abortions despite the fact he had clearly contravened the Criminal Code. More recently in Michigan, several juries have refused to convict Dr. Jack Kevorkian of murder for assisting terminally ill patients to commit suicide. In California, several juries have refused to convict anyone charged with kidnapping and forcible confinement where the action was taken to remove a young person from a religious cult.

Cases of this sort are not the rule, but they arise often enough to require some thought. The central issue is whether the jurors were justified in their refusal to follow the law. There are two common reactions to such cases. The first is to regard the jurors as having acted improperly because they were swayed by sympathy for the accused; they acted emotionally rather than rationally. The second is to regard the jurors as having behaved improperly because they were incapable of understanding the legal issues involved; they acted out of ignorance rather than rationally.

Those who take the first view tend to be tolerant of jury nullification, at least when they share the jurors' sympathy for the accused. Those who take the latter view — usually members of the legal establishment — tend to call for the abolition of jury trials on the ground that juries are incapable of understanding legal issues. Both views assume that jury nullification is a violation of legal and moral principles; they differ only on whether they condone or condemn the jurors.

I reject this assumption. In my view, there are sometimes good reasons for holding that jurors morally ought to set aside the law and that such decisions are legally defensible. But before arguing my case, we need to be a bit clearer about the nature of jury nullification. The standard definition of jury nullification is that it occurs when a jury exercises its discretion in favor of a defendant whom it nevertheless believes has committed an illegal act. There are three main types of nullification. (1) The jury acquits an accused person because it doesn't believe the act in question should be a crime. (2) The jury acquits because the act, while wrong, does not deserve the punishment that is prescribed by law. (3) The jury acquits because punishing the accused is not appropriate under the particular circum-



stances of the case. In each type of case, the jury uses its own sense of what is just or reasonable to set aside what the letter of the law requires. It substitutes its own judgment for that of Parliament and the courts.

Let me address the moral question first. Is a jury ever morally justified in refusing to follow the law? This is a tough question because we generally assume that when Parliament enacts criminal laws, it reflects the democratic will of the people. Jury nullification thus seems to have an anti-democratic quality. So what reasons can be given to defend the view that juries are nevertheless sometimes justified in refusing to follow the law?

*"What is legally controversial is whether jury members can be informed before they begin their deliberations that they have a legally protected right to nullify the law."*

(1) When Parliament enacts a criminal law, it legislates for the generality of cases. It can hardly do otherwise; to attempt to deal with the particular circumstances of every case would mean producing a Criminal Code of unimaginable complexity. Juries, however, don't deal with the generality of cases, but with highly specific situations, and it is inevitable that from time to time, cases will arise where it is reasonable to think that Parliament did not intend that law to apply to a case such as this particular one. But the written law does apply. So there is a tension between what Parliament presumably intended and what it actually did, which juries must grapple with, and it is not obvious that the letter of the law is always the right option.

(2) Criminal laws reflect the generally accepted views of what we are morally permitted to do and what we are not. But these views are frequently subject to gradual change over time, and sometimes it is clear that if Parliament were to reconsider the matter, it would probably revise its judgment about what the law should be. Juries will from time to time have to grapple with an issue where the law is out of step with public opinion. Jury nullification can thus be a powerful prod to government to introduce needed reforms. It is surely no accident that the refusal of successive juries to convict Morgentaler led to the removal of the abortion section of the Criminal Code.

(3) When a jury nullifies a law, it sets no precedent that will be applied in other cases. Its decision applies only to the particular case in hand and has no legal ramifications beyond it. In principle, jury nullification is always interpreted legally as a verdict on the facts of the case. Even though everyone involved may understand that jury nullification has occurred, the particular law in question remains legally intact.

(4) Finally, because jury verdicts must be unanimous, a jury can only nullify a law if all 12 jurors agree that punishing the accused would constitute a serious injustice. This virtually guarantees that jury nullification will not be used frivolously.

What about the legality of jury nullification? Surely it must be illegal for jurors to deliberately disregard the law as it is explained to them by the judge, even if they are morally justified in doing so. There are two reasons for denying this.

(1) The oath that jury members take does not explicitly require them to accept passively the judge's declaration of what the law is. It requires them to "well and truly try and true deliberation make ..." and to reach "a true verdict according to the evidence." Most legal scholars interpret the oath as creating enough latitude for jurors to use their best judgment as to the merits of the case.

(2) There are no laws that can be used to challenge jury nullification. Jury members cannot be charged with contempt of court if it seems they have disregarded the law. In addition, they are forbidden from revealing to anyone what was said during their deliberations. They are thus legally free to nullify a law with impunity.

What is legally controversial is whether jury members can be informed before they begin their deliberations that they have a legally protected right to nullify the law. Courts have generally been unwilling to allow a defendant's lawyer to inform the jury of this right; in most jurisdictions, doing so would result in a mistrial being declared. In the United States, however, an organization called the Fully Informed Jury Association has been formed for the purpose of informing the general public — and thus all prospective jurors — of the right of jury nullification.

Fears that fully informed juries would render even more capricious verdicts than we see now are surely greatly exaggerated. We would most likely see what we all want — a more just system of criminal law.

*Prof. William Hughes recently retired from the Department of Philosophy after 32 years at U of G.*

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# New College Will Pool Resources, Build on Interdisciplinary Strengths

Continued from page 1

when the first combined Dean's Council of FACS and CSS met — the college's appearance at this juncture seems set to answer some questions about higher education in general.

"At a moment in time when universities are being accused by some of not being proactive or responsive enough to changing circumstances in the world at large, the creation of this college contradicts that criticism," says Nightingale. "We are coming together, pooling our world-class resources, building on interdisciplinary strengths and will be more relevant than ever before."

If co-operation and collaboration are to be bywords for the future of the new college, they have also been much in evidence in its creation. The College of Social and Applied Human Sciences is the result of months of work by faculty, staff, administrators, students and alumni. Knight knows that a similar spirit will be required in the coming days and years for the college to reach its potential. "For that, I know we will be counting on the continuing good will and co-operative spirit that have been present the past six months."

Marr, who was involved in the merger of the two student governments, believes it will take a mix of time and patience. "In the short term, we aren't expecting to see any major benefits, but there is potential. I think most of the real benefits will come in the next few years."

In fact, some exciting new growth has occurred, and more is around the corner. The University Faculty of Management came into effect May 1, replacing the Business Studies Council. Nightingale will serve as designated dean. Faculty are drawn from the Department of Consumer Studies, Department of Economics and School of Hotel and Food Administration, as well as the Department of Agricultural Economics and Business in OAC.

Proposed, but still to be approved, for the college is a new Centre for Families, Work and Well-Being. Based in the Department of Family Relations and Applied Nutrition, the centre will be a visible "storefront" operation, facilitating research and its dissemination, serving as a link between the University and the community.

"The Centre for Families, Work and Well-Being will capitalize on the interdisciplinary and collaborative strengths arising from the formation of the new college," says Prof. Kerry Daly, Family Relations and Applied Nutrition.

"At a time when universities are being called on to be more accountable to the public, this centre is positioned to respond to the growing challenges among families and employers for new strategies in balancing work and life. Through its research, policy analysis and information dissemination, the centre will be the first of its kind in Canada."

Rozanski is keen to note the broad support for the creation of the new college. "I congratulate deans David Knight and Michael Nightingale and provost Iain Campbell for their leadership in making this college a reality," says Rozanski. "Change and progress are never easy, but when they are guided by a willingness to work together and, most important, are based on a sound and meritorious proposition, they deserve to succeed. I also congratulate chairs and faculty, staff and representatives of the colleges' student governments, who all invested long hours on committees and within their own units to make the transition as smooth as possible."

Knight and Nightingale also acknowledge alumni of the two founding colleges, some 27,000 strong, who provided important input and feedback at every stage of the proposal. Many have seen change before as graduates of the Macdonald Institute and Wellington College, as well as FACS and CSS.

"Innovation isn't something new for us," says Knight. "If you go back through our respective histories, you see that both colleges have been evolving constantly and consistently. So to those who've had long or short associations with the former College of Family and Consumer Studies or with the College of Social Science, I would remind them that the names may have changed, but the people are still here, keen to welcome the challenge. We're not gone — we've only joined a bigger family!"

BY ALEXANDER WOOLEY



The College of Family and Consumer Studies Learning and Teaching Awards and the College of Social Science Award for Innovation and Excellence in Teaching were presented recently — the last time the awards will be presented under those names, following the creation of the new College of Social and Applied Human Sciences. Above: Prof. Michael Hoy, Economics, is this year's winner of the CSS award. Below: Winners of the FACS awards, clockwise from top left: Prof. Heather Keller, Family Relations and Applied Nutrition (undergraduate teaching excellence); Prof. Valerie Allen, HAFS (learner-centred excellence); Prof. Vinay Kanetkar, Consumer Studies (Alumni Award for Teaching Excellence); Prof. Karen Finlay, Consumer Studies (graduate advising excellence); Prof. Barbara Stuart, Family Relations and Applied Nutrition (applied teaching excellence); and graduate students Jody Hendry (contributions to learning and teaching) and January Addy (graduate teaching assistance excellence), both of the Department of Family Relations and Applied Nutrition.

PHOTOS BY MARTIN SCHWALBE

## Awards Acknowledge That Ontario Needs to Support University Researchers

Continued from page 1

three years will be provided to colleges and universities to double their first-year intake by the year 2000 in computer science and information technology-related engineering programs.

- The finance minister announced that a plan is in hand to create a new student assistance program. He also said Ontario will combine its share of the Millennium Fund to create the Canada-Ontario Millennium Fund. Total student assistance will be \$9 billion over 10 years. The \$9-billion figure appears to be the sum of what

the government currently spends on OSAP, plus its share of the federal Millennium Scholarship Fund, with a slight adjustment for inflation.

- The government, in partnership with the private sector (a two-to-one split), will provide \$75 million over 10 years for graduate scholarships in science and technology.

- Again in partnership, the government and private sector will provide a further \$75 million for Research Excellence Awards to help researchers in the earlier phases of their careers hire "talented people"

for their research teams.

- U of G received a mention in the minister's speech, when Eves announced that Guelph will share special funding to set up an innovative pilot project to assist students with learning disabilities. The grant follows on a proposal the University made to the Ministry of Education and Training's (MET) Learning Opportunities Task Force. Although formal details have yet to be released, it is hoped there will be sufficient funding to accommodate two cohorts of students in a five-year

pilot project.

- U of G is ineligible for \$29 million in MET annual grants that will be targeted to a group of universities to raise their funding levels per student to the provincial average.

Campbell is pleased that U of G's proposal to the Learning Opportunities Task Force will be funded and believes the new Research Excellence Awards are tacit acknowledgment by the government that Ontario needs to support its university researchers.

"There have been some claims that the province is putting as much

as \$600 million into postsecondary education over an extended period," he says. "But how much of this is new funding is not clear, as it includes the rescheduling of already announced OCF dollars. All the funding is specifically targeted by the government, requiring matching funding in several cases, and is spread out over three and even 10 years. While science and technology have benefited, there was no analogous assistance for the arts and humanities or the social and behavioral sciences."



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Williams baby grand piano, Delta truck utility box, 1978 Honda Hawk 400 motorcycle, 823-8282.

GE refrigerator, almond, three-door side-by-side; four- and nine-drawer dressers; single electric bed, leave message at 821-1879.

Small woodstove with chimney pipes and fire screen, good size for cottage, excellent condition, Ann, Ext. 2377.

Sailboat, CL14, jib and main sails, trailer, good condition, Ext. 3092 or 763-6954.

Samick grand piano, six-foot, black, 1991, Ext. 2777, 824-4177 between 9 a.m. and 4 p.m. or send e-mail to kcarey@uoguelph.ca.

1995 Chrysler Sebring LX, two-door hardtop, V6, automatic, air, AM/FM CD player, low kilometres, still under warranty, 822-9323.

1976 Chev 17-foot custom motorhome, 350 engine, loaded, new propane tank, refrigerator, stainless-steel holding tanks, three-piece bath, air, awnings, gas generator, 821-9378.

Three-bedroom custom-built side-split, hardwood floors, two baths, large kitchen with Barzotti cupboards, finished rec room, private fenced yard, north-end neighborhood, close to schools, 824-8249.

Single extra-long futon mattress and futon chair frame, garden shed, 821-2133.

Robert Bateman prints: *Orca Procession*, *Midnight Black Wolf*, *Arctic Wolf*, 821-3158 after 5 p.m. or leave message.

## FOR RENT

Furnished room in Ironwood/Kortright area for non-smoking female, 30-minute walk to campus, on bus route, laundry, refrigerator, freezer, use of family room and television, kitchen, \$250 a month from May to August, \$280 a month in the fall, 763-7595.

Furnished four-bedroom home in University area, family room with wood fireplace, gas fireplace in living room, 3 1/2 baths, two-car garage, fenced yard, available late August to June 1999, \$1,350 a month plus utilities, Ext. 3008 or 822-2424.

Renovated one-bedroom basement apartment in private residence, Speedvale/Victoria area, non-smokers, no pets, light laundry, parking, \$600 a month inclusive, Joan, Ext. 2151.

Four-bedroom furnished older home, four minutes to campus, large fenced yard, two baths, all appliances, available August 1998 to August 1999, suit visiting professor and family, \$1,250 a month plus utilities, Ext. 4934 or 836-6264.

Three-bedroom lakefront cottage on Mill Lake in Parry Sound, available mid-June to Thanksgiving, four kilometres to town, 905-822-9015 evenings.

Two-bedroom penthouse apartment in historical Guelph stone house, Exhibition Park area, available May 1, \$899 a month; furnished bachelor apartment in Montreal for summer sublet May to July, full kitchen and bath, five minutes from McGill, \$320 a month, 824-1773.

Furnished four-bedroom home on quiet cul-de-sac, 2 1/2 baths, close to schools and shopping, double garage, central air, private fenced yard, seven-minute walk to campus, non-smokers, available either Sept.

1, 1998, to Aug. 31, 1999, or Jan. 1 to Aug. 31, 1999, \$1,450 a month plus utilities, Ext. 3548, 824-2104 or send e-mail to guest@angus.chembio.uoguelph.ca.

One-bedroom apartment, Edinburgh/Paisley area, large living room and bedroom with hardwood floors, four-piece bath, eat-in kitchen, parking, close to downtown, on bus route, access to front and back yards, 11-month minimum lease, \$600 a month plus utilities, John or Elaine, 767-1715.

Furnished apartment in Montreal for summer sublet May to August, suitable for two people, close to McGill, 763-5239 or Ext. 3846.

Four-bedroom bungalow south of Guelph, two baths, large garden, five minutes to campus, available Sept. 1 to Christmas 1998, \$1,200 a month inclusive, 836-1796.

Room in house, laundry, parking, two baths, yard, walking distance to park and downtown, 10-minute walk to campus, fall option available, \$200 a month plus utilities, 837-1141 or send e-mail to elliott@uoguelph.ca.

Semi-furnished three-bedroom century stone house, one bath, large back room with great windows, hardwood floors, yard, shed, washer/dryer, downtown location, non-smokers, available July 1 to June 30, 1999, \$1,300 a month plus utilities, Jay, 822-3493.

Bachelor-style basement apartment, separate entrance, bathroom and kitchen, laundry, parking for one car, on bus route, 15-minute bike ride to campus, no pets, suitable for single student, mature individuals only, available Sept. 1, \$425 a month inclusive, 837-2227.

## AVAILABLE

Care for your dog in my home while you travel, Cobi, 836-8086 or send e-mail to cdeimmers@uoguelph.ca.

Learn timber framing at a workshop, with barn raising, Aug. 10 to 15, St. Thomas area, Ext. 4716.

## WANTED

House to rent for professional couple from mid-May to August, preferably unfurnished but with appliances, Carol, Ext. 6749 or 763-8104 evenings.

Temporary housing for three to five months in Guelph or the surrounding area, furnished or unfurnished, references available, 610-873-4865 or e-mail to jfromins@msn.com.

Instruction in paper tole, Ext. 6580.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@execadmin.uoguelph.ca. For more information, call Ext. 6581.

## Animal Care Services

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Thursday, May 14th, 1998.  
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## ARBORETUM

Naturalist Chris Earley leads a workshop on sparrows May 26 and June 2 at 7 p.m. and June 7 at 6:30 a.m. The workshop will explain how to identify and understand the behavior of 19 species of sparrows. Fee is \$58. Registration and payment are required by May 19. To register, call Ext. 4110.

A tree-dedication ceremony will be held in the Hospice Wellington Lilac Garden May 24 at 2 p.m. Everyone is welcome. For more information, call 836-3921.

## ART CENTRE

The Macdonald Stewart Art Centre presents 100 master drawings from the Herman Collection, a U.S. private collection never before exhibited in Canada, May 21 to July 26. The show features 50 western masterpieces by artists as varied as Hans Holbein the Younger, George Romney and Guercino, as well as 50 Inuit masterpieces. The opening reception is May 21 from 7:30 to 9:30 p.m. Exhibition curators Prof. Chandler Kirwin, Fine Art and Music, and MSAC director Judith Nasby will give introductory remarks at 8 p.m. They will also give a gallery talk June 9 at noon.

The art centre is offering art camps this summer for children aged seven to 12. The week-long programs run Monday to Friday from 9 a.m. to 4 p.m., beginning July 6. Camp themes are "Celebrate Our Culture," "No Place Like Home" and "The Living Landscape." Cost is \$165 per session (\$145 for members). Register in person during the art centre's regular hours — Tuesday to Sunday, noon to 5 p.m. Additional child care for a half-hour before and after each class is available for an additional \$10 a week.

The Macdonald Stewart Art Centre presents Gardenscapes, its annual self-guided tour of five Guelph gardens, June 21 from noon to 5 p.m. (rain or shine). The gardens of three members of the University community are featured this year — Prof.

Gil Stelter, History; Prof. Clive Southey, Economics; and Mary Ann Robinson, U of G Library. Admission is \$8 general, \$3 for children under 12. Tickets are available at the art centre, Royal City Nursery, the Framing and Art Centre and Coach House Florist and Gifts. For more information, call 837-0010 days or 837-8082 evenings.

## LECTURE

Glen Jones, an associate professor with the higher education group in the Department of Theory and Policy Studies in Education and member of the Centre for Research in Medical Education at the Toronto Hospital, Faculty of Medicine, University of Toronto, will speak May 27 at 11 a.m. in OVC 1713. A question period and discussion will follow.

## NOTICES

The International Agricultural Research System-Wide Program on Participatory Research and Gender Analysis is calling for papers for its second international seminar and planning workshop scheduled for Sept. 6 to 12 in Quito, Ecuador. The overall theme of the seminar is assessing the impact of using participatory research and gender analysis. Authors interested in contributing to the seminar should submit a short paper of three to five pages by May 31. Send to: SWP PRGA Co-ordination Office, CIAT, c/o Kathryn Laing, AA 6713, Cali, Colombia, telephone: (57 2) 445 0131, fax: (57 2) 445 0073 or e-mail: k.laing@cgmnet.com.

The Stress Management and High Performance Clinic is offering a spring class in stress management and relaxation skills beginning May 19. The 12 one-hour sessions run Tuesdays and Thursdays at 8 p.m. in UC 441 and offer instruction in a variety of techniques for muscular relaxation, anxiety reduction and worry control. Cost is \$40 for U of G students, \$60 for members of the U of G Staff Association and \$120 for others. For information, call Ext. 2662 or visit the Web site [www.uoguelph/~ksomers](http://www.uoguelph/~ksomers).

The University of Prince Edward Island will hold its 15th annual Faculty Development Summer Institute Aug. 2 to 6. Space is limited, so early registration is encouraged. For more information, check out the Web site <http://www.upei.ca/~extensio/FDSI98.htm>.

## WORKSHOPS

The Axelrod Institute of Ichthyology is conducting three short-term workshops in the aquatic sciences this summer. Offered through the Office of Open Learning, the sessions will focus on "Technical Approaches to Fish Stock Identification" June 29 to July 10, "Biological Assessment of Environmental Quality in Running Waters" July 2 to 15 and "Financial and Economic Techniques in Aquaculture" July 23 to Aug. 5. For more information, visit the Web site <http://www.open.uoguelph.ca/axelrod>.

## COMMUNITY EVENTS

"Memories of Childhood" is the theme of this year's Guelph Spring Festival, which runs May 22 to 31. Opening the festival is soprano Mary Lou Fallis starring in *Primadonna on a Moose* May 22 at 8 p.m. at the River Run Centre. Other featured performers include the Toronto Symphony Youth Orchestra, violinist Martin Beaver and the Festival Strings of Canada, the Kitchener-Waterloo Symphony Orchestra and Children's Choir, Tactus and jazz musician Jane Bunnett. The festival also features a series of free community concerts, a streetfest May 23 from 11 a.m. to 4:30 p.m. in downtown Guelph and the Edward Johnson Music Competition. For ticket information, call 763-3000.

The Arboretum and Macdonald Stewart Art Centre are two of the local sites featured May 9 during "Discover Guelph: Be a Tourist in Your Own Town," a first-time event sponsored by the Guelph Arts Council and Guelph Visitor and Convention Services. Passports for the day are \$5 (free for children). For more information, call 836-3280 or 837-1335.

Centre Wellington Children's Drama Club presents *The Land of the Loud-As-Can-Be* May 10 at 2 and 7 p.m. at Theatre on the Grand in Ferguson. For tickets, call 787-1981. The club is accepting résumés for the position of director for the 1998/99 seasons. For more information, call Lena Nudds at 843-3470.

Shelagh Rogers, host of CBC Radio Two's *Take Five*, will broadcast her show live from the Canada Company Hall at the River Run Centre May 22 from 9 to 11 a.m. to celebrate the opening of the Guelph Spring Festival. Admission is free.

Artwork created by more than 300 children in Wellington County to celebrate the 1998 Guelph Spring Festival will be on display at the Framing and Art Centre, 987 Gordon St., from May 20 to 30. The official opening is May 20 from 7 to 9 p.m.

The Guelph Arts Council seeks nominations for its annual Heritage Awards program, which recognizes property owners who have contributed to the preservation, restoration or development of their heritage properties in Guelph. Deadline for nominations is May 15. For forms and information, call the GAC office at 836-3280.

The Dogtooth chapter of the Canadian Wildflower Society will hold its annual plant sale May 23 from 7 a.m. to noon at the Guelph Farmers' Market. All proceeds go towards conservation of natural areas in Canada.

The Guelph Chamber Choir and friends will perform Beethoven's *Mass in C* May 9 at 8 p.m. at the River Run Centre. Conductor is Gerald Neufeld. Soloists are Stephanie Kramer, Carol Ann Feldstein, Glyn Evans and Neil McLaren. For tickets, call 763-3000.

The Arkell Schoolhouse Gallery presents soprano Sharla Nafziger and pianist Jon Gonder May 16 at 8 p.m. Tickets are \$15. For reservations, call 763-7528.

The Guelph Arts Council is again offering a series of guided walking tours of historical Guelph. Five tours are available, all beginning at 2 p.m. Scheduled for May are "Downtown Walkabout" (May 10, meet at the Guelph Civic Museum), "The Slopes of the Speed" (May 17, Guelph Public Library), "Altar and Hearth" (May 24, Civic Museum) and "Brooklyn and the College Hill" (May 31, McCrae House). Cost is \$2. For more information, call 836-3280.

The Royal City Calligraphy Guild will hold a silent auction at its next meeting May 12 at 7:30 p.m. at the Evergreen Centre. For more information, call 823-8098.

Women's Work, a resource for enterprising Guelph women, is calling for submission of articles on motherhood for a publication due Oct. 1. Articles should be about 800 words. The deadline for submissions is June 30. For more information, call 763-3977, send e-mail to [abruece@sentex.net](mailto:abruece@sentex.net) or visit the Web site [www.sentex.net/~jbruce](http://www.sentex.net/~jbruce).

The Royal Zoo (Guelph's Youth Action Committee) will mark Youth Awareness Day May 30 with a craft show from 9 a.m. to 3 p.m. at Riverside Park. People are invited to bring their homemade items to sell. For more information, call Madeleine Sullivan at 824-9809 or Anwen Sutherland at 836-9654.

The Guelph chapter of PSI, the Association for Office Professionals, meets May 13 at Riverslea on Arthur Street. Dinner at 6 p.m. will be followed by a presentation on "Giving and Receiving Criticism" by elementary school principal Judy Massey.

The Zonta Club of Guelph and area, in association with Guelph Museums, present its 14th annual house tour June 7 from 11 a.m. to 4 p.m. Tickets are \$15 and are available at Ki Design, Monte's Place, the Barber Gallery and Santa Fe Marketplace.

## Clean It and They Will Come

Cleaning blitz turns student residences into hotel-style conference facility

OK, IT'S NOT a custodian's "field of dreams," but Custodial Services' cleaning of student residences in just five days is an essential part of U of G's growing success as a conference facility.

In total, 1.2 million square feet of residence space and 4,000 beds are used to house conference participants. And come the beginning of May, 800 student rooms and 180 washrooms must be cleaned before the initial influx of conference visitors. This includes steam cleaning carpets, polishing floors and

thoroughly washing windows, walls and appliances.

Because custodians can't begin cleaning until students leave their residences, a cleaning blitz is required, says Ron Sutherland, manager of south and east facilities support services. Custodians pool their resources and work around the clock to convert campus residences into hotel-style accommodation in five days.

"We try to run as much like a hotel as possible," says Sutherland. "We have little time to get the resi-

dences ready before conferences begin — it's a very quick turnover."

Preparing for and satisfying large numbers of visitors requires flexibility and effective communication, says Norm Saunders, manager of north facility support services.

"We receive a lot of positive feedback about the cleanliness of the facilities and the services provided for conferences at U of G, which tells us conference delegates are satisfied," says Saunders.

More than 22,000 conference delegates are expected to visit cam-

pus this year, says conferences manager Cyndy Forsyth. And 40,000 bed nights have been confirmed, up from 18,000 during the previous year.

"We have a lot of repeat business, which I think speaks for itself," says Forsyth. "For example, this is the 26th year that we've hosted the Ontario Good Roads Association Conference."

U of G has been hosting conferences since the late 1960s, she says, and success still hinges on cooperation among the University's

custodial and conference operations and numerous other campus units, including Student Housing, Parking and Athletics.

Highlights of this year's conference season include the University's winning bid to host the 1998 Ontario Summer Games in August, an international conference for ichthyologists and herpetologists, Canada Cup wrestling, Butoku-Kai Camp and the End of the Decade Conference.

BY VICKY SHEARER





# GUELPH

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- 5 **HABA PROF** John Patterson earns kudos for contributions to hospitality education.

## Teaching About the Holocaust

*U of G journal will help educators grapple with challenging questions*

**W**HAT SHOULD we tell our children about the Holocaust? How do we keep the awful memories alive for future generations without traumatizing young impressionable minds? In what ways can we pass this important lesson along to young people without shattering their faith in humanity?

Educators grappling with these challenging questions will want to read an upcoming issue of the University of Guelph journal *Canadian Children's Literature (CCL)* focusing on "Teaching the Holocaust: Issues and Resources." The volume focuses specifically on educating young people about the Third Reich's "Final Solution."

Produced in the School of Literatures and Performance Studies in English, *CCL* is a non-profit journal geared to educators and librarians in primary and secondary schools. Founded at U of G in 1975, it often devotes individual issues to a specific theme. The publication features essays and reviews from leading authorities on literature for young people and critiques resources available to educators.

"Teaching the Holocaust" was edited by U of G English professor Mary Rubio; Prof. Daniel

*Continued on page 5*



## BRANCHING OUT

Arboretum horticulturist Henry Kock is seeking the public's help in finding surviving mature white elms in Ontario for a project aimed at developing disease-resistant trees. See story on page 8.

PHOTO BY MARTIN SCHWALBE

## A Healthy Collaboration

*Centre will expand teaching and research, provide health and wellness facility*

**T**HE DDORS ARE STILL off their hinges and the signage has yet to be posted around the Powell Building, but it won't be long before U of G's new Lifestyle Assessment, Sports Medicine and Nutraceutical Research Centre opens to students, researchers and the public.

A collaborative initiative of the Department of Human Biology and Nutritional Sciences, the Department of Athletics and Student Health Services, the new centre is expected to expand U of G's teaching and research capabilities, as well as offer a full-service health and wellness facility for members of the campus and local communities.

Early this month, Student Health Services opened shop as the first ten-

ant of the nearly renovated building. When complete, the centre will include a main therapy room, facilities for performance and fitness testing and nutraceuticals research, and offices for practitioners who will contract with U of G to provide services in chiropractic, physiotherapy, massage therapy and nutritional counselling. Its sports medicine component will also allow for much-needed expansion of the University's athletic therapy unit, currently located in cramped quarters in Alumni Stadium.

An official opening will take place later this year, possibly when the Ontario Summer Games open on campus in August or during Homecoming weekend.

## Internal Reviews Reflect Push for Accountability

*University will assess all departments, schools, undergraduate programs over the next seven years*

**S**ELF-STUDY MAY sound like a learning method for U of G students. But under a new internal review process beginning this year, the "students" will be the University's academic departments, schools and programs, and their subject will be the quality of their own undergraduate offerings.

Under a process now required of all Ontario universities by the province, internal review committees (IRCs) will examine Guelph's departments, schools and undergraduate major and degree programs in the next seven years, identify their strengths and weaknesses, and suggest ways to attain the highest possible quality throughout departmental and interdepartmental programs.

"No doubt the province decided to legislate internal reviews in response to public calls for more accountability from postsecondary institutions," says Prof. Richard Barham, Family Relations and Applied Nutrition, chair of the Standing Committee on Internal Reviews (SCIR), which is spearheading the review process.

"There is more concern these days that good-quality assessment is going on and that universities have

plans to address that," says Barham, adding that the Ontario government wants to see "substantive quality reviews undertaken of all undergraduate programs. This reflects an international push toward greater accountability for publicly funded institutions."

Universities' review processes will be audited by the Ontario Council of Academic Vice-Presidents.

Guelph's internal review committees — one for each department, school or program — will identify strengths and weaknesses in such things as undergraduate offerings, administrative structure, teaching and evaluation, outcome indicators (where available) and links between teaching and research.

The committees will draw heavily on a self-study conducted by departments, schools or program committees, as well as available measures of outcomes and quality.

Among other things, each unit will examine and report on its activities, course offerings, measures of teaching effectiveness and interdisciplinary activities.

Units will also include pertinent information on enrolment, student placement, operating funds, administrative and staff support, and library resources.

"Overall, there will be an interest in seeing how the department's undergraduate and other programs relate to the general framework of this University's mission and strategic directions," says Barham.

That information, along with comment from unit administrators, faculty, staff and students, will be submitted for review, comment and advice from an external consultant. The IRC will then submit a report to SCIR, which in turn reports to the Senate Committee on University Planning.

IRC members will include the chair of SCIR, a dean from another college, three faculty from another department or program, two students (one graduate and one undergraduate) from another department or program, and an external consultant.

SCIR will choose committee members from lists of candidates submitted by the pertinent depart-

Students will, for example, be able

*Continued on page 6*

*Continued on page 2*



# Student Information System Moves Ahead

*Collaborative effort with other Ontario universities will position Guelph well for the short term and future*

U OF G'S NEW student information system, scheduled for full implementation this fall, is moving ahead as scheduled, according to a progress report presented to Senate in March.

Colleague went live for undergraduate and graduate admissions this winter, creating and mailing the first round of confirmation letters during the first week of February. In June, admissions staff will send out graduate and undergraduate offers using the system.

"This is a significant achievement, and all of the staff in the Office of Registrarial Services and Computing and Communications Services should be commended," says provost Iain Campbell.

The need for U of G to adopt a new student information system was identified by the Information Technology Strategy Committee in its review of campus systems' abilities to handle the problems anticipated in the year 2000. After reviewing its options, Guelph decided to purchase the computer package Colleague in collaboration with Lakehead, Laurentian and Trent universities.

"This collaborative effort will position Guelph well in both the short term and long term," says graduate studies dean Alastair Summerlee, chair of the Colleague Management Team. "Together, there is a commitment to develop bridges among the systems at the institutions, among the universities and with the Ontario Universities' Application Centre and the Ministry of Education and Training," he says.

Colleague consists of several modules related to registrarial functions and also includes activities associated with scheduling and residences. Since January 1997, many U of G faculty, staff and students have been involved in implementation issues and the development of training programs. The implementation plan was designed around U of G's annual cycle of events and follows a staged approach: admissions/financial aid/curriculum management/academic records/accounts receivable/cash receipts/registration.

The admissions module was designed and implemented first; next up are Academic Records and Student Financial Services, which will convert to the new system this fall. In addition, modules related to other areas such as residences and statistical databases are being designed, with implementation dates determined by priority needs.

"The move to Colleague gives U of G an opportunity to revise some of its complex and administratively expensive approaches to student processes, which will reduce some of the frustrations expressed by faculty, staff and students about our cumbersome procedures," says Summerlee. The system will allow faculty and staff with appropriate clearance to obtain information at

their desktop computer about class rosters and schedules, to submit grades and to access online statistical reports, he says.

"Students will also be pleased with the highly service-oriented program," says registrar Chuck Cunningham. "They will be able to complete numerous tasks online through the Web, including course selection, reviewing timetables, changing their address, checking their grades and reviewing their financial accounts. The move from a batch approach in course scheduling to an online approach means that students will receive confirmation of their class schedule immediately on selecting their courses."

The Colleague Management Team is responsible for overall management of the Colleague project and for liaison with senior administration and the program supplier, DATATEL. Besides Summerlee and Cunningham, the team consists of project manager Brian Pettigrew; Brenda Whiteside, academic assistant to the provost; and Ron Elmslie, director of Computing and Communications Services. With Pettigrew currently on an extended medical leave, acting project manager is Ray Darling of Graduate Program Services.

Key staff in Registrarial Services and CCS have received extensive training on the Colleague system from DATATEL. These staff are now beginning to train the rest of the staff, starting first with those in Admissions and Graduate Program Services because they will be the first to use the system. Plans are also under way to begin training for users on campus, again beginning first with those who currently need the system in their job. This fall, there will also be training opportunities for students.

A copy of the full progress report on Colleague is available from the Senate Office on Level 4 of the University Centre. Watch for more updates on Colleague's implementation in future issues of @Guelph.

## Funding Announcement Boosts Hopes

Researchers from four U of G colleges and Laboratory Services hope the Ontario government's plan to accelerate \$135 million in research and development funding over the next three years improves their funding chances for a \$78-million research proposal submitted to Queen's Park earlier this year.

In its proposal, Guelph asked the province for \$20.29 million over three years toward a \$78-million agri-food research initiative that would bring together 174 U of G scientists with researchers from the universities of Toronto and Western Ontario and private-sector partners in the agri-food sector.

In his budget speech May 5, Fi-

nance Minister Ernie Eves announced that the province will pour more money than anticipated into the Ontario Research and Development Challenge Fund during the next three years.

When it was originally unveiled last year, the program was intended to provide \$500 million over the next decade for collaborative research projects between business and research institutions. But bowing to pressure from university officials eager to tap into matching funds from the Canada Foundation for Innovation program — under which Ottawa will provide \$800 million over five years for research infrastructure — Queen's Park has effectively "front-

ended" the program by funding it over seven years rather than 10.

"Instead of \$50 million a year, the province will provide \$100 million a year for the first three years," says Wayne Marsh, U of G's director of research services. "Clearly, that's good news."

The finance minister also pledged a total of \$35 million in new funding for conservation and environmental programs:

- \$20 million for the Natural Areas Protection initiative;
- \$10 million for fish and wildlife protection and enhancement; and
- a \$5-million endowment to create the Ontario Great Lakes Renewal Foundation.

## SENATE REPORT

*Electronic graduate calendar to become official version*

BEGINNING THIS FALL, the Web version of Guelph's graduate calendar, as approved by Senate and Board of Governors, will become the official calendar for graduate students at U of G. The hard-copy version of the calendar, which is published every two years, will still be available, but will no longer be referred to as the legally binding document, Senate decided at its May 12 meeting. In proposing the change, the Board of Graduate Studies noted that the hard-copy version of

the calendar goes quickly out of date because of ongoing program changes, and that faculty and students are using the electronic version of the calendar for current information.

Approved changes to programs will be implemented at the end of each semester, and archived versions of calendars will be available on the Web. Approved policy changes will only be implemented each fall at the start of the new academic year.

### NEW MASTER'S IN ENGINEERING APPROVED

In other Board of Graduate Studies Business, Senate approved a new M.Eng. in biological engineering in the School of Engineering. A course-intensive program designed for practising engineers, it will draw on current resources and will complement the school's other master's degrees in water resources engineering and environmental engineering. Projected enrolment is six or seven students per year.

### FALL-ENTRY EXCEPTIONS

Starting this fall, the Office of Registrarial Services will be able to make exceptions to the fall-entry rule for a

limited number of students entering from high school. The students will have to provide evidence that the fall-only rule presents a significant barrier. No more than 40 students will be admitted under this exception rule and only to the BA, B.Sc. and B.Comm. programs.

Graduate studies dean Alastair Summerlee, chair of the Enrolment Management Committee, told Senate that the fall-entry rule presents a barrier to admission for a variety of students, including mature students and international students. He assured senators the process would be monitored closely.

In other Board of Undergraduate Business, Senate approved a proposed articulation agreement

between the B.Comm. program at U of G and the business administration, food and beverage management, general business and computer analysis programs at Conestoga College. Senate also approved a motion that U of G's slot system continue in its current format and be reviewed again in three years.

### COU COLLEAGUE NAMED

Prof. Derek Bewley, Department of Botany, was named U of G's Council of Ontario Universities colleague for the 1989/99 session of Senate, succeeding Prof. Carlton Gyles, Pathobiology. Bewley's alternate will be Prof. Janet Wood, Microbiology.

## Reviews to Mesh With Graduate Appraisals

*Continued from page 1*

ment or program committee and from a list provided by Student Senate Caucus.

Following a schedule developed last year during consultations between SCIR and Guelph's departments and schools, and confirmed by Senate, U of G will undertake internal reviews department by department, beginning this year and ending by 2003/04, when the cycle will start over.

Although the government has focused on undergraduate activities, SCI has timed most reviews to mesh with the ongoing schedule of appraisals of Guelph's graduate programs and accreditation reviews of its professional programs.

Barham says this will ensure a holistic look at the performance of departments and programs while accommodating departmental

needs and keeping the attendant paperwork and effort to a minimum.

Scrutinizing units and programs across campus to develop and continually improve their quality is a long-established practice on most campuses, but this review process focuses on undergraduate programs and reflects interest in the quality of graduates and how they fare following graduation.

"It's often hard to find data on postgraduate performance," says Barham, adding that U of G may wish to further develop such tools as its post-graduation survey. "In fact, the University of Guelph has been a leader among universities in undertaking post-graduation surveys."

Provost Iain Campbell says there is "no evidence that the government plans to be intrusive, either in the conduct or the outcome of the re-

views. Government's chief concern has been to put in place an audit body that periodically checks that each university is conducting reviews according to its schedule and its own Senate-approved rules."

Barham says the entire University appears to view the process as useful. "Our University community, our board and the public will become more aware of the ongoing development of excellence in our units and the quality demonstrated by the performance of our graduates."

BY ANDREW VOWLES

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**UNIVERSITY OF GUELPH**



# CHAPPEL LECTURE IN BIOMEDICAL SCIENCES JUNE 18

OVC and the Faculty of Graduate Studies present the 1998 Chappel Memorial Lecture in Biomedical Sciences June 18 at 2:30 p.m. in Room 1713 of OVC's Learning Centre. James Cross of the Samuel Lunenfeld Research Institute at Mount Sinai Hospital and a professor of molecular and medical genetics and obstetrics and gynecology at the University of Toronto, will discuss "Using Molecular Biology to Understand the Development of the Cardiovascular System and Placenta in Mammals." A reception will follow the lecture. Cross will be visiting campus June 18 and 19. To schedule an appointment with him, send e-mail to jlamarre@ovcnet.uoguelph.ca.

## SEXUALITY CONFERENCE SET

The 20<sup>th</sup> annual Guelph Conference and Training Institute on Sexuality runs on campus June 8 to 17. This year's theme is "Children and Youth: Strategies and Skills for Sexual Health Education and Services." The keynote address features Avi Lewis, host of CityTV's *The New Music*, moderating a panel of four young people who will share their perspectives and experiences of pop culture. Sponsored by Open Learning and the Department of Family Relations and Applied Nutrition, the conference draws teachers, counsellors, doctors, nurses, social workers and members of the clergy from across Canada and the United States.

## DEANS MEET IN GUELPH

Some 30 deans of arts, humanities and social sciences from across Canada are meeting in Guelph this week, hosted by College of Arts dean Carole Stewart. Members of the Canadian Association of Fine Arts Deans meet May 21 and 22; the Canadian Council of Deans of Arts, Humanities and Social Sciences meets May 24; and the two groups hold a joint meeting May 23. Issues to be discussed include performance indicators in the fine arts, restructuring and "chilly" climate and sexual harassment issues.

## GETTING ON TRACK

The Department of Athletics and track coach Dave Scott-Thomas are offering U of G's first track-and-field camps for young people this summer. Designed for eight- to 15-year-olds, the camps run July 6 to 17 (half days) and July 20 to 24 (full days) in Alumni Stadium. Scott-Thomas will be assisted by national-class athletes from the 1997 CIAU championship cross-country team. For more information, call Scott-Thomas at Ext. 3430, fax to 766-9563 or send e-mail to dscottth@uoguelph.ca.



## THE ROYAL TREATMENT

Royal Bank president John Cleghorn was on campus May 14 to address a noon-hour joint meeting of the Guelph and Wellington Region Kiwanis and Rotary clubs and the Guelph Chamber of Commerce (COC) in Creelman Hall. Close to 300 club members, COC officials, Royal Bank employees and members of the University community attended the event. Above, Cleghorn, left, checks out a U of G T-shirt presented to him by physics professor emeritus Jim Stevens, incoming president of the Rotary Club of Guelph.

PHOTO BY MARTIN SCHWALBE

# Let It SNO

*Sudbury Neutrino Observatory will mine information about the universe*

A TEAM OF LEADING international physicists, including three U of G faculty, isn't looking to the heavens to understand the nature of the universe, but rather to the bottom of a two-kilometre-deep mine shaft in Northern Ontario.

INCO's Creighton Mine is the location of the Sudbury Neutrino Observatory (SNO) a \$60-million mega-project established to detect and measure the mass of neutrinos, tiny ghost-like particles that are produced by stars and exist all around us. Through the further understanding of neutrinos, the scientific community hopes to learn more about the universe, its origins and its future.

The recent opening of the SNO attracted worldwide attention from both the mainstream media and the scientific community. Even leading physicist Stephen Hawking toured the facility.

U of G physics professors John Simpson, Robin Ollerhead and Jimmy Law form Guelph's contingent to the SNO project, which includes 350 scientists and technicians from Queen's University, Carleton, Laurentian, UBC, the University of Pennsylvania, the University of Washington and Oxford University, as well as U.S. National Laboratories at Los Alamos, N.M., Brookhaven, N.Y., and Lawrence Berkeley, California.

The project has received funding from various international agencies, governments, institutions and organizations, including the Natural Sciences and Engineering Research Council of Canada, the U.S. Department of Energy, the U.K. Science and Engineering Research Council, the National Research Council of

Canada, the Northern Ontario Heritage Fund Corporation, Industry Canada and INCO Limited.

The SNO consists of a large subterranean cavern 22 metres in diameter, which is filled with 1,000 tonnes of water. Suspended in the centre of the cavern is a large plastic sphere, 12 metres across, that is studded with 10,000 light detectors. The sphere is then filled with 1,000 tonnes of heavy water or D<sub>2</sub>O.

About 20 times a day, fusion reactions in the sun's core generate trillions of neutrinos that are scattered across space. Some of these neutrinos reach Earth, pass through the surface of the planet and reach the subterranean SNO facility. Only at the bottom of the cavern, away from all light and other solar radiation, can neutrinos be analysed in detail.

When neutrinos come into contact with the particles in the heavy water, small bursts of light can be seen using special sensors. It is through this process that physicists hope to learn more about neutrinos and determine if they have any mass and, if so, how much.

"If the neutrinos have a mass, it means the universe may be heavier than we think it is," says Simpson. "The universe will eventually stop expanding in a few billion years and collapse back on itself. This is known as the 'Big Crunch.'"

He says there has been some debate in the scientific community about the mass of the neutrino. "The question now may not be if the neutrino has mass, but rather how much mass. That's what we are hoping to determine."

Scientists from other participating universities and institutions will

analyse the data gathered on a daily basis, either onsite or from their respective campuses via the Internet.

Simpson, one of the "founding fathers" of the SNO, has been on the project since its conception in 1984.

"It's been a long road," he says. "The project has involved the University of California, Irvine, Queen's, the National Research Council, Guelph, the federal government, the government of Ontario, Laurentian and, of course, Atomic Energy of Canada Limited — it's their heavy water we're using."

Simpson explains why Canada was the most suitable country for establishing the SNO: "This country has a large supply of heavy water, and we have the deepest, most suitable mines in the world. That makes it the most logical place for such an observatory."

A faculty member at Guelph since 1969, Simpson says he is "very excited" about his role in the SNO project. "This is without a doubt the climax of my career."

Prof. Ken Jeffrey, chair of the Department of Physics, is enthusiastic about the participation of the three Guelph faculty members in the project.

"This really puts us on the map," says Jeffrey. "It's a tremendous opportunity to establish our reputation worldwide."

Although still only in the instrumental calibration process, the lab will be fully operational and generating data as soon as the middle of this summer.

The experiments will run until the end of 2000, when AECL will recover the heavy water.

BY NATHAN MALLET

# PEOPLE

## ENGLISH PROFS GIVE TALKS

Prof. Donna Palmateer Pennee, Literatures and Performance Studies in English, presented a paper on "The American Political Unconscious in David Cronenberg's *Naked Lunch*" at the Society for the Study of Narrative Conference at Northwestern University, Illinois, in April. Prof. Christine Bold, director of the Cultural Studies Centre, was invited to speak in a plenary session on "Pedagogy as Materialist Practice" at the interdisciplinary conference "Concrete Matters: Feminist Materialism Across the Disciplines," held in Alberta in March. Her paper on "Change in Practice" addressed recent curricular revision in U of G's English program and curricular design by the Cultural Studies Seminar on Pedagogies.

## IN MEMORIAM

Murray McCutcheon, an employee at U of G from 1967 to 1994, died April 30 in Guelph after a lengthy illness. He was 60. He held several positions on campus, including manager of Mail Services and senior buyer/supervisor with Purchasing Services. He is survived by his wife, Sheila; one son, Eric; and three stepchildren, Lesley, Ken, John and Peter, all of Guelph.

## Turf Course Sprouts New Growth

U OF G'S POPULAR Turf Managers Short Course, held every February, has become a bit more accessible.

To meet the heavy demand for the 30-year-old course, U of G has added a second session in the fall of 1998 from Nov. 16 to Dec. 11. Registration is now open for both the fall and winter offerings.

Over the past two decades, it has become increasingly difficult for people to obtain a space in the course, says Peggy Nagle, a program manager in the Office of Open Learning. For last February's course, the 50 spots in the course were filled four minutes after registration began.

"People started lining up at the door at 2 a.m.," says Nagle. "By 11 a.m., there were 60 people in line waiting to register. At the stroke of noon, our phone lines and fax lines went crazy with calls from across Canada."

The intensive four-week program is in such high demand because of the quality of teaching and the marketability of its graduates, she says.

For more information or to register, call the Office of Open Learning at 767-5000, fax to 767-1114 or send e-mail to info@open.uoguelph.ca.



# CAUTION: MERGER AHEAD

*"Theories of complexity and chaos in the social sciences, together with emerging networks, suggest that size should be getting smaller. Practitioners are simply ignoring this."*

BY ROBERT ANKLI

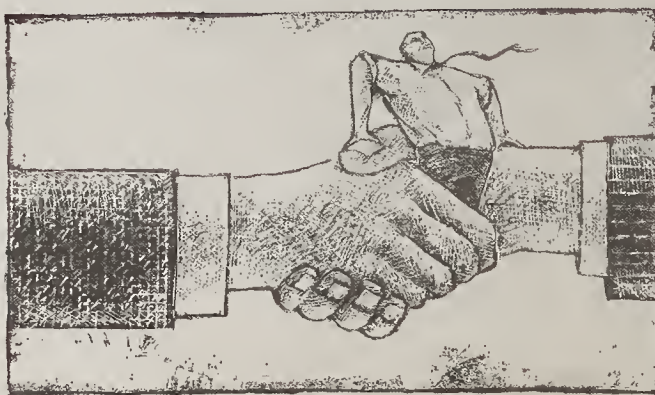
Twenty-five years ago, Peter Drucker described that era as *The Age of Discontinuity*. As he explained, an economist Rip Van Winkle who went to sleep around 1900 would have recognized the major players in the economy in 1960, but would have had more difficulty by 1970. And this was before the rise of the personal computer, the software industry and the Internet, before the biotechnology industry, before the globalization of the automobile industry, before... well, you get the picture.

Today, this change seems to be accelerating. Since the beginning of the year, the Bank of Montreal has proposed to merge with the Royal Bank, and CIBC has proposed to merge with Toronto Dominion. All this has occurred since the major banks have taken over most of the major trust companies. In the United States, Citibank has proposed to merge with Travelers Insurance Group, Nations Bank has proposed to merge with Bank of America, and so on. But this is not just happening in the banking sector. Earlier this month, auto giants Chrysler and Daimler-Benz proposed a merger. Finally, Microsoft is about to be hit with a huge anti-trust suit that could eventually cause it to be split.

What are we to make of all this? Why is it happening? Is there a single cause running through all this? Should we be concerned? Let me begin by saying that theories of complexity and chaos in the social sciences, together with emerging networks, suggest that size should be getting smaller. Practitioners are simply ignoring this.

Rather, "information" and the computer, together with the coming of the "global economy"—whatever that might mean—seem to be running through all these changes. Selling "information" has become valuable. In the case of banks, this can be seen in the relative decline in their interest income, the traditional source of their profits. Michael Dell explains it this way in the computer industry: If there are 20 firms making video cards, should we be the 21st or should we sell advice to others as to which of the 20 is best for them?

Technology has transformed everything banks do, from delivering credit cards and processing loans to transferring trillions of dollars around the globe. But these merger partners believe we've only seen the beginning of such changes. The plan is that technology ranging from Web sites and remote video hookups to "data-mining" software will cut costs and increase revenues. The goal is integrated high-speed computer networks that sell everything from mutual funds and insurance policies to simple chequeing accounts to consumers around the globe.



This should be coupled with the fact that banks have been losing their relative financial importance. In the United States, banks controlled 50 per cent of financial assets in 1950. Today, it's 20 per cent. The figures are roughly equivalent for Canada. We have so many other places to put our money besides banks. The result is that banks now make the bulk of their profits by selling information and collecting service charges rather than through interest charges on loans.

A feature of the U.S. financial system is that banks are still operating under some of the restrictions of Depression era legislation. Under the Glass-Steagall Act, banks are not allowed to be involved with investment banks or with insurance companies, so the Citibank merger represents something of a challenge to the U.S. government.

The same might be said for the Canadian situation. It was generally believed that the large banks would not go ahead with a merger unless they had government approval, but they reasoned it would be almost impossible to receive such permission unless they had already gone ahead. "It is better to act and then ask forgiveness, rather than to ask permission first." The Canadian Task Force on the Future of the Canadian Financial Services Sector is due to report this fall, so the Canadian merger proposals have forced the issue.

This does not mean, however, that these mergers will be good for the consumer. Citibank merger proponents argue that customers want one-stop financial shopping, but when such combinations have been tried in the past, they have usually been unsuccessful. The Canadian banks argue that they have to get bigger to compete internationally. There is little evidence that this is so. The large Japanese banks that are supposedly better able to compete are in great difficulty because of questionable

loans they have made in the past. Perhaps these mergers occur because there is a fear of the unknown and a fear of being left behind in the coming digital age.

Turning to automobiles, it is generally acknowledged that there is considerable overcapacity in the world automobile industry. There are 20 major producers today; a decade from now, there may be only a dozen. This industry has changed greatly since the Japanese invasion of North America in the early 1970s. Ford controls Jaguar and has investment in Mazda. GM controls Saab. Volkswagen (probably) took over Rolls Royce in the same week as the Chrysler merger.

The Daimler-Chrysler merger gives Chrysler a window in Europe and Mercedes a bigger window in the United States. Neither has much presence in Asia, so there is

some chance that Matsushita will be added. Chrysler's stock is also undervalued, and this makes a good investment for the Germans.

Recently, a Rule of Three has been proposed: In competitive, mature markets, there is room for only three major players along with several (in some markets, many) niche players. It is argued that Toyota and Ford are two of the three in automobiles. Who will be third? Surprisingly, many experts believe that GM will not be the third, so Daimler-Chrysler has an opening to capture this third spot. Is the Rule of Three correct? We don't really know, but if firms believe it, then they will act to make it so.

Finally, Microsoft. There is widespread disagreement as to whether anti-trust proceedings should be launched. Many argue that stand-alone computers using Windows-based technology are almost a thing of the past and that Microsoft will not be able to dominate the Web in the way that it has dominated the PC. In 1969, the U.S. government launched an anti-trust suit against IBM, which lasted until 1982, when the case was dropped. In the meantime, mainframes became much less important, and IBM eventually botched its lead in PCs. The market, rather than government, destroyed IBM's "monopoly." On the other hand, there are those who believe that Microsoft gains an unfair advantage in software applications that run on its Windows platforms.

We are living in a time of great transition. There will be successes, failures and many surprises. But it's likely that a generation from now, a present-day Rip Van Winkle will still be wondering what happened.

*Prof. Robert Ankli is a faculty member in the Department of Economics.*

## Ties with Iceland Focus of Symposium

*Former Icelandic president to join discussion of cultural, educational, economic and scientific links with Canada*

“Iceland and Canada: One Thousand Years — Culture and Technology, Agriculture to Astronauts” is the theme of a symposium slated for June 11 at the Arboretum. It is being held in honor of former Icelandic president Vigdis Finnbogadóttir, who will be on campus to receive an honorary degree at spring convocation.

Building on the Guelph-Iceland Academic Exchange Program begun in 1995, the symposium will focus on cultural, educational,

economic and scientific ties between the two countries. Organizers are Profs. David Noakes, Zoology, and Steven Cronshaw, Psychology, both of whom were key movers in setting up the academic exchange with Iceland's two universities and two agricultural colleges, and who first recommended Finnbogadóttir for an honorary degree.

Noakes, who has visited Iceland a number of times as a researcher, says the symposium “represents for me in the most concrete manner possible

all the abstract features that make a university the most attractive place I can imagine and the most representative of human interests and activities.”

Cronshaw traces Icelandic roots on his maternal side. His mother, though born in Canada, spoke Icelandic as her first language.

“In coming up with the idea for the symposium, we wanted to emphasize the idea of exchange,” he says. “So we thought: ‘Where did that really start?’ Well, according to

some sources, Icelanders visited Canada as much as a thousand years ago, with evidence of a settlement discovered at L'Anse aux Meadows, Newfoundland. More recently, there was a wave of immigration to Canada from Iceland in the 1870s.”

Cronshaw points out elements common to both countries, including progressive liberal societies, declining fish stocks, an adverse climate, a scattered population, transportation and communication challenges, and strong democratic

institutions. Noakes, on the other hand, is struck by what makes Iceland unique. “It is a combination of arctic and almost tropical features, situated at the Arctic Circle, but heated by the Gulf Stream and geothermal activity. It is the only country for which we have the entire human history recorded — the entire history of human interactions and impacts with the environment.”

For more information about the symposium, call Cronshaw at Ext. 2163.



# A HOSPITABLE RECEPTION

Ontario Hostelry Institute honors HAFA professor for leadership role in hospitality education

BY ALEXANDER WOOLEY

**L**IFELONG LEARNING HAS become a popular concept in recent years. For HAFA professor John Patterson, the teacher, it has been practice for more than a decade, something he's managed to tie neatly to a professional career in the hospitality industry.

His success in linking the two was recognized last month when he received the 1998 Ontario Hostelry Institute (OHI) Gold Award in the educator category, only the eighth such prize ever given. It was presented last month at a gala dinner in Toronto before some 400 guests.

The gold award is not only a singular recognition of Patterson's contributions as a teacher, but also of HAFA's ongoing leadership role in educating future leaders in the hospitality industry and retraining those further along in their careers. The latter is accomplished through the school's management development programs, particularly the Advanced Management Program for the Hospitality Industry (AMPHI) and the Hospitality Managers' Development Course (HMDC), which Patterson co-founded. More recently, Patterson has developed specific educational programs exclusively for corporate clients.

In the letter to Patterson notifying him of his award, OHI chair and president Charles Grieco wrote: "What your peers chose to honor you for through this gold award are your accomplishments as an educator and in particular for your work at the University of Guelph that has helped to make the School of Hotel and Food Administration . . . a truly recognized knowledge-based centre for the hospitality-tourism industry."

Prof. Michael Nightingale, dean of the College of Social and Applied Human Sciences and himself a fellow of the OHI, notes that this is the most prestigious award the OHI gives to a hospitality educator. "It reflects well on the contribution John has made in teaching hospitality executives and to the innovative role the School of Hotel and Food Administration has played, in collaboration with industry leaders, in the development of management education for the Canadian hospitality industry," Nightingale says.



Typically, if paradoxically, the high prestige of the award invokes modesty on Patterson's part. For one thing, he thinks the OHI got the wrong man. "Naturally, I'm pleased and honored to have won this award. But I think the judges made a fundamental mistake. The award should have gone to the founder of the management development programs, Tom Powers, a visionary and one of the founders of the program. I wouldn't have received this award unless the program had been here."

Teaching to different ages and levels of academic and professional achievement has given Patterson insight into the evolving role of the profession. "Increasingly, teachers are becoming facilitators, particularly after a student has been here more than two years. So we are moving in this direction of learner-centredness, and I think the key trait to have to be a sound facilitator is to be a good listener. You have to draw on the knowledge in a room, so that what one student says can be shared with the others."

The mix of professional and academic interests parallels Patterson's own career. A HAFA faculty member since 1975, he has also been an owner/operator in the restaurant industry,

served as assistant director of food services at U of G, and is a much-in-demand consultant to the food service, hotelier and resort industries in Canada and internationally. He has been involved in curricular development for undergraduate and executive programs in Canada, the United States and Thailand, where in 1996 he was a visiting professor at Prince of Songkla University in Phuket.

In addition to teaching HAFA's fourth-year capstone courses on industry strategy and operations, Patterson continues to participate in the AMPHI and HMDC programs. He describes the two courses as "unique" on-campus residential programs offered once a year, with AMPHI a two-week program serving senior executives and HMDC a one-week program for middle managers.

The curricula is case-study-oriented, with many of the cases written and taught by HAFA faculty. Patterson has authored or co-authored more than 40 cases himself. The programs also feature intense negotiating exercises, complete business simulations and group projects. Each day begins at 6:30 a.m. and runs until 10 in the evening. Registration is by application and nomination only. The curriculum is updated continually, with input coming from program participants and a policy adviser board that includes the presidents of Delta Hotels and Resorts, Coca-Cola and Canadian Pacific Hotels. More than 800 industry leaders have come through HAFA's management development programs.

In an industry like hospitality, these links are crucial, says Patterson, who notes that the links serve not only the students but the teachers as well.

"The HAFA faculty members who have taught the management development programs have all won college or departmental teaching awards, which I believe speaks to the transferability of our teaching skills. And in my experience, faculty who teach these management development programs tend to learn even more than their students. The benefit is that, as a teacher, you can then transfer this knowledge into the curriculum, to impart that knowledge to your graduate and undergraduate students."

PHOTO BY MARTIN SCHWALBE

## CCL Journal Receives Enthusiastic Response

Continued from page 1

Chouinard, chair of the School of Languages and Literatures; and University of Winnipeg English professor Marie Davis. They believe there is an urgent need for such a resource.

"It has long been a complaint of the Jewish community that the Holocaust, when taught at all, is examined only as an event in history, rather than a pivotal period of contemporary western culture," says Davis. "It has influenced our art, film, music, literature, politics and economics."

Topics in the journal include family storytelling, pedagogy, an examination of Holocaust literature for children and young adults, a discussion of Holocaust drama and art, educational programs at museums and memorial centres, and diaries and reflections of survivors.

Davis recounts how her interest in the CCL issue on the Holocaust was

sparked: "A few years back, I was listening to Elie Wiesel on CBC Radio talking about teaching the history of the Holocaust to young people. Wiesel said children were the people he would most like to reach. I started thinking about passing on tales of this staggering cruelty and suffering to children. Should we do it? When? How?"

Both Davis and Rubio believe it's important to teach children in primary school about the Holocaust, rather than wait until they've grown up. Davis remembers being shocked to find out about the story on her own at a young age.

"I was eight when I came across one of my father's books about the Holocaust. I wanted my father to tell me it wasn't true. But he told me gently that I hadn't misunderstood."

Gathering material and editing

the CCL Holocaust issue has been an experience much different from putting together other issues of the journal, says Davis.

"There's an unusual degree of passion in Holocaust studies. The contributors know that their ideas and arguments will influence our readers intellectually, but also emotionally and psychologically. That's a kind of influence that demands conviction, and my contributors have it."

Rubio echoes these sentiments as she describes the torrent of interest in the topic. "We put out a call for academic papers, expecting the standard level of response, three or four articles. We were surprised by the level of enthusiasm we received. So many people wanted to be a part of this project."

Fifty-three years have passed since the Jews were liberated from their

Nazi oppressors, but controversy still surrounds the Holocaust. Rubio describes the challenges the subject poses to educators: "Some people think we must be upfront about this. We have to teach young people the dangers of human nature's 'genocidal impulse.' We have to be careful, though, so that children don't end up hating, and so that Jews don't end up being permanently associated with weakness and victimization."

"Teaching the Holocaust" is currently in the final stages of the editing process, but a release date is still uncertain.

"We are still looking for the money to produce the issue," says Rubio. "We have received some donations already, but more funding is required."

BY NATHAN MALLETT

## APPOINTMENTS

William Cormack of the University of Saskatchewan joins the Department of History as assistant professor Aug. 1.

Susan Jane Douglas of Montreal has been appointed assistant professor in the School of Fine Art and Music, beginning Aug. 1.

Ira Mandell has been appointed assistant professor in the Department of Animal and Poultry Science, effective May 1.

Daniel O'Quinn of the School of Literatures and Performance Studies in English has been appointed assistant professor in the school, effective Aug. 1.

Tina Widowski has been named assistant professor in the Department of Animal and Poultry Science, effective May 1.



# Taking the Lead on Weeds

OAC scientists earn national, international kudos for holistic weed research in field and laboratory

**G**UELPH'S HOLISTIC, integrated approach to weed science is a winner, twice over.

Weed scientists Prof. Clarence Swanton, Plant Agriculture, and Chris Hall, Environmental Biology, have been honored for research excellence nationally and internationally.

Swanton won the 1997 Dow-Elanco Excellence in Weed Science Award and Hall won the international Outstanding Researcher Award from the Weed Science Society of America (WSSA).

"This recognition synergizes the momentum of our drive to obtain excellence at U of G," says Swanton. "These awards show if you're not studying weed science at Guelph, you're just not studying weed science."

Swanton's award, in recognition of his outstanding research, has special significance — this was the first time the award was presented nationally. (In the past, two awards have been presented — one in the western section of Canada and one in the eastern section. Hall won the eastern section award in 1996.)

Swanton's research focuses on developing integrated weed-management systems, primarily for Ontario field crops. Weeds are the major pest problem for field crops in the province. His systems management approach looks at more than one level of control, rather than just relying on herbicides. By considering what he calls the "many little hammers" that can be used to control weeds — such

as tillage practices, plant hybrids and crop density — he aims to make crops as competitive as possible against weeds, so herbicide use can be minimized.

Now Swanton is applying his research to developing decision support systems (DSS) for farmers, based on their management practices. He's also exploring a natural means of weed control through seed predation — the ability of weed seed predators to eat a crop's competitors.

Swanton's field research is complemented in the laboratory by Hall's experiments. Both graduates of Guelph, they have been collaborating closely for many years, working together to provide a unique integrated picture of weeds.

"We can't answer all the questions in weed science by just looking at the field or laboratory alone — you need both," says Hall. "The field is a litmus test for work done in the lab."

Hall says his WSSA award is a comment on this institution and its healthy interaction with provincial grower groups, the Ontario Ministry of Agriculture, Food and Rural Affairs, the Natural Sciences and Engineering Research Council and Agriculture and Agri-Food Canada. Stressing that his work isn't done in isolation, he credits both Swanton and Prof. Gerry Stephenson, Environmental Biology, for the success of Guelph's integrated weed research.

"We've been able to achieve excellence because we're surrounded by such a supportive environment, in-

tellectually, morally and financially," says Hall.

He also credits the WSSA's links with colleagues and information sources across North America for allowing him to remain current in his subject area while growing professionally and personally.

Hall's research aims to understand the fate and persistence of chemicals in the environment and at the biochemical level. His research goals fit in with those of the WSSA — to promote understanding of weed science and the benefits and detriment of weeds to society.

"We're also informing the public of the pros and cons of herbicide use," he says. "It's our duty to present an unbiased perspective on weed science and weed control."

A 1980 M.Sc. graduate of Guelph's environmental biology program, Hall also holds B.Sc. degrees in crop science and physical sciences from U of G and earned his PhD in plant science from the University of Alberta in 1985, the same year he became a faculty member at U of G. He served as chair of the Guelph Turfgrass Institute from 1990 to 1992 and is currently the institute's chair for research.

Swanton also joined Guelph's faculty in 1985 and holds an M.Sc. in agricultural meteorology from U of G and a PhD in plant ecology from the University of Western Ontario. Before joining Guelph, he was a weed biologist at Ridgetown College from 1978 to 1985.



Together, Profs. Chris Hall, left, and Clarence Swanton provide a unique integrated picture of weeds.

PHOTO BY MARTIN SCHWALBE

For the past 12 years, Swanton has been coaching U of G's undergraduate and graduate weed teams, which regularly earn top marks at an annual student competition in the United

States. In 1995, he received the WSSA award for outstanding paper on weed science.

BY AMINA ALI  
OFFICE OF RESEARCH

## Centre to Offer Total Lifestyle Package

Continued from page 1

to follow nutritional or exercise interventions for clients visiting the centre for help with metabolic disorders. Students in a new graduate course in nutraceuticals — foods with therapeutic value — will conduct research and practise patient counselling. For a variety of laboratory- and research-based courses from work physiology to human metabolism, the centre will give students a hands-on forum for learning research techniques.

Faculty and students will also be able to use the centre for various research projects in sports medicine, fitness and nutraceuticals. By working with on-site clinicians, for example, faculty will enhance their research in how ergogenic aids affect athletic performance or what impact dietary supplements have on cardiovascular health. The centre may eventually attract private companies interested in developing and testing nutraceuticals

before taking them to market.

"We envision more demand for a centre that would test products," says McLean. "We would like to do that here."

Members of the University and the broader community will also use the centre for an array of fitness and wellness services and continuing education. Under one roof, clients can be assessed for personal fitness and nutritional status; receive physio-

therapy, chiropractic care, massage therapy and sports medicine treatment; or participate in leading-edge fitness and nutritional research.

"The centre will offer a total lifestyle package," says Prof. Terry Graham, Human Biology and Nutritional Sciences. "It's for anyone who wants to start an exercise program for the first time, as well as for the competitive athlete."

Belonging to a larger centre will make the University's athletic therapy unit and its sports medicine physicians more visible on campus.

"It will give us a better facility to work with and provide students with better service," says Gunnar Obrascovs, head athletic therapist. "It will also allow students to integrate with other paramedics such as physiotherapists and chiropractors."

The centre will be an important part of a new joint program in sports injury management to begin this fall between U of G and Sheridan College. And it will enable students, including open learners, to complete studies towards certification as fitness appraisers or fitness and lifestyle consultants.

BY ANDREW VOWLES

## Let's See What You're Made Of

**W**ORRIED ABOUT that spare tire? Feeling a trifle hippy? Get off those scales and into the dunk tank at U of G's new Lifestyle Assessment, Sports Medicine and Nutraceutical Research Centre.

According to centre co-ordinator Cyndy McLean, it's not your weight that figures so highly in assessing overall physical fitness but your body's balance of fat, bone, muscle and other components. And the most accurate method of measuring body composition — total immersion in a hydrostatic weighing tank — will be available to University and community users of the new centre's fitness

assessment services. Although about six Canadian universities have such weighing tanks, only Guelph will open its facility to the general public.

Long a fixture in teaching and research at the University, the tank — reminiscent of a carnival-style dunk tank but with a submerged swing rather than an overhead perch — allows investigators to use the Archimedes principle to calculate body density and estimate body composition.

McLean acknowledges that not everyone will relish undergoing a mini-endurance test just to learn what they're made of (users have to

bend forward on the underwater swing, then exhale until they feel themselves starved for air). Most people will likely plump for more conventional tests at the centre, such as using calipers to measure skin folds or the bioelectrical impedance test, which tests the body's resistance to a mild electrical current.

Still, none of these tests is as accurate as the weighing tank, says McLean, who anticipates interest from athletes and avid fitness and exercise buffs. "This form of analysis is considered the gold standard for evaluating body composition," she says.

## GRAD NEWS

The final examination of Susan MacMillan, an M.Sc. candidate in the Department of Chemistry and Biochemistry, is May 27 at 2 p.m. in MacNaughton 222. The thesis is "The Substrate and Inhibitor Specificity of the Osmoregulatory Transporter Pro P." The adviser is Prof. Janet Wood.

The final examination of M.Sc. candidate Steven Beasley, Chemistry and Biochemistry, is May 28 at 2 p.m. in MacNaughton 222. The thesis is "Expression of the *Pasteurella haemolytica* O-sialoglycoprotein Endopeptidase as a GST Fusion Protein." The adviser is Prof. Alan Mellors.

The final thesis exhibition of Andrew Szatmari, an MFA candidate in the School of Fine Art and Music, is June 16 at 10:30 a.m. in the Zavitz Hall Gallery. The adviser is Prof. Margaret Priest.

The final thesis exhibition of MFA candidate Fraser Stables, Fine Art and Music, is June 18 at 10:30 a.m. at the Pekao Gallery, 1610 Bloor St. W. in Toronto. The adviser is Prof. Margaret Priest.



# CLASSIFIEDS

## FOR SALE

Chocolate Labrador pups, CKD-registered, born April 8, dew claws removed, good hunting stock, excellent family pets, males and females available, Kincardine, 519-396-3120.

Two orchestra seats for *Les Misérables* matinee Sept. 23 at Princess of Wales theatre, send e-mail to lskog@hrio.uoguelph.ca.

Large pine English antique armoire, about seven by five feet; mahogany coffee and end tables; two framed Hockney prints, 836-7743 evenings.

Spalding right-handed golf clubs with bag, great starter set, 822-3129.

New unregistered copy of Adobe Photoshop 3.0, on both 3 1/2-inch disk and CD-ROM, includes registration cards and all manuals, never loaded, best offer, Ext. 3338.

1990 Chrysler Dynasty, 3L V6, four-door, hitch, block heater, regularly maintained, 160,000 kilometres, certified, 836-6076 or send e-mail to droz@physics.uoguelph.ca.

1990 Honda Accord LX, four-door, automatic, cruise, excellent condition, Ron, Ext. 3818 or leave message at 822-7743.

1992 Honda Accord, four-door, automatic, eight tires, serviced and well-maintained, reliable, body in top condition, 141,000 kilometres, Bruce, Ext. 2122 or 767-0386.

1977 Dodge Delta 23-foot motorhome 440, sleeps six, air conditioned, three-piece bath, 60,000 miles, excellent condition, 821-9227.

Williams baby grand piano, Delta truck utility box, 1978 Honda Hawk 400 motorcycle, 823-8282.

1976 Chev 17-foot custom motorhome, 350 engine, loaded, new propane tank, refrigerator, stainless-steel holding tanks, three-piece bath, air, awnings, gas generator, will certify, 821-9378.

Three-bedroom Alberta split near University, 2,100 square feet, high-efficiency gas, gas fireplace, large deck, near school and park, extra basement bedroom, double-car garage, no agents, 836-3555.

Three-bedroom custom-built side-split, hardwood floors, two baths, large kitchen with Barzotti cupboards, finished rec room, private fenced yard, north-end neighborhood, close to schools, 824-8249.

## FOR RENT

Renovated one-bedroom basement apartment in private residence, Speedvale/Victoria area, non-smokers, no pets, light laundry, parking, \$600 a month inclusive, Joan, Ext. 2151.

Three-bedroom island cottage on Newboro Lake, north of Kingston, canoe, barbecue, good swimming, fishing, boating, 826-6763 or 613-733-6152.

Two bedrooms available in three-bedroom finished basement, separate entrance, laundry, parking, cable, \$160 a month inclusive from May to end of August, one room available in the fall at \$300 a month, 766-9809 or send e-mail to ptimerm@isd.uoguelph.ca.

Four-bedroom furnished home, seven-minute walk to campus, adjacent to schools, shopping, fenced yard, two patios, double garage, central heat and air, suitable for visiting professor and family, available Sept. 1 or Jan. 1 until Aug. 31, 1999, non-smokers, \$1,450 a month plus utilities, Ext. 3548, 824-2104 or send e-mail to guest@angus.chembio.uoguelph.ca.

One-bedroom studio apartment in Victorian home, downtown near public library, available June 1, \$750 a month inclusive, 823-8080.

Room in three-bedroom house, close to downtown, hardwood floor, washer and dryer, nice backyard, \$275 a month plus utilities, 763-6926.

Furnished two-bedroom townhouse, parking, suitable for mature, responsible tenant, one-year lease, first and last month's rent, non-smokers, no pets, available July 1 or 15, 823-5230 or 826-4083.

Four-bedroom south-end bungalow in quiet mature area, two baths, large garden, five minutes to campus, available Sept. 1 to Christmas, \$1,200 a month inclusive, 836-1796.

Furnished room in Ironwood/Kortright area for non-smoking female, 30-minute walk to campus, on bus route, laundry, refrigerator, freezer, use of family room and television, kitchen, \$250 a month from May to August, \$280 a month in the fall, 763-7595.

Furnished four-bedroom home in University area, family room with wood fireplace, gas fireplace in living room, 3 1/2 baths, two-car garage, fenced yard, available late August to June 1999, \$1,350 a month plus utilities, Ext. 3008 or 822-2424.

Upscale two-bedroom furnished condo in heart of Guelph for short-term accommodation, kitchen, TV, VCR, air conditioning, controlled entrance, parking, laundry, Jacuzzi, available July 1, \$1,100 a month inclusive, Carol, 823-1857 or 831-6225.

Four-bedroom furnished older home, four minutes to campus, large fenced yard, two baths, all appliances, available from August 1998 to August 1999, would suit visiting pro-

fessor and family, \$1,250 a month plus utilities, Ext. 4934 or 836-6264.

One-bedroom apartment, Edinburgh/Paisley area, large living room and bedroom with hardwood floors, four-piece bath, eat-in kitchen, parking, close to downtown, on bus route, access to front and back yards, 11-month minimum lease, \$600 a month plus utilities, John or Elaine, 767-1715.

Semi-furnished three-bedroom century stone house, one bath, large back room with great windows, hardwood floors, yard, shed, washer/dryer, downtown location, non-smokers, available July 1 to June 30, 1999, \$1,300 a month plus utilities, Jay, 822-3493.

## AVAILABLE

Casual weekend work for honest, hard-working student, must have driver's licence and transportation to Guelph Line/401 area, Trevor, leave message at 823-4707 or fax to 905-854-3562.

Care for your dog in my home while you travel, Cobi, 836-8086 or send e-mail to clemmers@uoguelph.ca.

Learn timber framing at a workshop, with barn raising, Aug. 10 to 15, St. Thomas area, Ext. 4716.

One or two offices to share with engineering company near College and Gordon, Ron, 836-9727.

Research assistant and U of G graduate seeking part- or full-time summer employment, best suited as a research assistant but eager for any challenges, Jayne, 763-6552 or send e-mail to ejohnson@freespace.net.

## WANTED

Used tent trailer in good condition, will consider all mid-priced styles and makes, Lori, Ext. 8185 from Monday to Wednesday or send e-mail to lwright@plant.uoguelph.ca.

Expert in Pagemaker 6.5 (and also Pagemaker 5) to do freelance layout work, must have own IBM-compatible computer and be proficient in Table Editor, styles, placing text and graphics, linking graphics, text blocks and master pages, Lenore, Ext. 4048.

Temporary housing for mature professional couple for three to five months, furnished or unfurnished, in Guelph/Kitchener/Milton area, references available, 610-873-4865 or send e-mail to jtomins@msn.com.

House to rent for professional couple from mid-May to August, preferably unfurnished but with appliances, Carol, Ext. 6749 or 763-8104 evenings.

## Summer Schedule

During the spring and summer, @Guelph will publish June 3 and 17, July 2 and Aug. 5. Copy deadline is one week before publication.

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## ARBORETUM

Interpretive horticulturist Henry Kock leads a history garden walk June 8 or 10 at 7 p.m. The walk focuses on how ancient gardens played an important role in civilization. Cost is \$26. Registration and payment are required by June 1. To register, call Ext. 4110.

Naturalist Chris Earley offers a workshop on sketching nature June 16 at 7 p.m. This session is for those who want a permanent record of their observations of nature. Cost is \$12. Register by June 9 at Ext. 4110.

## ART CENTRE

Prof. Chandler Kirwin, Fine Art and Music, and Macdonald Stewart Art Centre director Judith Nasby, curators of the centre's current exhibition of 100 master drawings from the Herman Collection, will give a gallery talk on the collection June 9 at noon. The exhibition continues to July 26.

MSAC presents Gardenscapes, its annual self-guided tour of five Guelph gardens, June 21 from noon to 5 p.m. (rain or shine). Admission is \$8 general, \$3 for children under 12. Tickets are available at the art centre, Royal City Nursery, the Framing and Art Centre and Coach House Florist and Gifts. For more information, call 837-0010 days or 837-8082 evenings.

## NOTICES

Board of Governors is calling for nominations to the one staff seat on the board for a three-year term beginning July 1. Candidates must be full-time, permanent, non-teaching employees of the University. Nominations must be submitted by May 25 at 4:30 p.m. to the Board Secretariat on Level 4 of the University Centre.

During the spring semester, library hours and services will operate on the following schedule. Until Aug. 17, the McLaughlin Library will be open from 8:30 a.m. to 10 p.m. Monday to Friday and noon to 10 p.m. weekends and holidays. From May 11 to Aug. 17, the veterinary science library is open 8:30 a.m. to 10 p.m. Monday to Thursday, 8:30 a.m. to 5:00 p.m. Fridays, noon to 5 p.m. on weekends and closed on holidays. For reference service hours throughout the semester, call Ext. 3617.

The Social Sciences and Humanities Research Council has launched a new funding program — the Project on Trends. Application deadline is June 15. For more information, visit the Web site <http://www.sshrc.ca/english/resopp/index.html>.

OUTline, a confidential resource and support line for the lesbian, gay, bisexual and transgendered community, is looking for enthusiastic volunteers interested in becoming a

member of the service's first board of directors. Deadline for submissions is May 22. Send your CV and a letter explaining your interest to Julie McCann, AIDS Committee of Guelph and Wellington County, 214B-85 Norfolk St., Guelph N1H 4J4, fax: 763-8125.

The Stress Management and High Performance Clinic is offering a "Better Sleep Program" beginning May 26. Focusing on cognitive/behavioral strategies, the five-session program meets Tuesday and Thursday from 5:30 to 6:30 p.m. in UC 332. Cost is \$50 for community members, \$25 for U of G students. For more information, visit the Web site [www.uoguelph.ca/~ksomers](http://www.uoguelph.ca/~ksomers) or leave a message at Ext. 2662.

"Practice of Participatory Development," a six-day course in practitioner skills and awareness, runs June 22 to 27 at the Matrix Building in downtown Guelph. Facilitators are Barbara Shaw of PRAXIS Consulting in Ottawa and Arja Vainio-Mattila of the Environmental Policy Institute at Brock University. Cost is \$600 (\$300 for students). For more information, call Susan Rimkus at 837-3970 or send e-mail to [srimkus@uoguelph.ca](mailto:srimkus@uoguelph.ca).

## COMMUNITY EVENTS

The sixth annual Hot Foot Happening, a 24-hour fun run to raise money for Guelph General Hospital

and St. Joseph's Hospital and Home, is slated for June 13 and 14 at Centennial Park, beginning at 10 a.m. Saturday. This year's fund-raising goal is \$250,000. Hot Foot teams represent businesses, banks, neighborhoods, associations and service clubs. Teams set up tents at Centennial Park, and one of their 22 team members is on the 2.5-kilometre track at all times. To sign up as a team or to volunteer to help out during the day, call 767-4150.

The Central Orchid Society will meet May 25 at 7 p.m. at St. Joseph's Catholic Church, corner of Courtland and Madison in Kitchener. Guest speaker Elenor Johnson will discuss "Botanical Drawing and Painting." For more information, call 836-4321, 744-4579 or 885-1888.

Victory Public School will hold its 37th annual dessert party and fun fair May 28 from 6 to 8 p.m. at 135 Exhibition St. The evening will feature a barbecue, tables of crafts and baked goods, a silent auction, a dollar table and a raffle. All proceeds go towards supporting programs at Victory School.

The Guelph Spring Festival runs May 22 to 31, with featured performers including the Toronto Symphony Youth Orchestra, the Freddy Cole Jazz Quartet, the Somerville Wind Sextet, violinist Martin Beaver and pianist Dang Thai Son. The fes-

tival also features free community concerts and a streetfest May 23 from 11 a.m. to 4:30 p.m. in downtown Guelph. For ticket information, call 763-3000.

The Eramosa-Guelph Community Play Project is offering a free workshop on stage fighting and acting May 23 at 1 p.m. at the Rockwood Library. For more information, call 856-9999.

The Ontario Public Interest Research Group (OPIRG) will hold its 19th annual Speed River cleanup June 6 at the Royal City Park starting at 9:30 a.m. (Rain date is June 13.) Everyone is encouraged to form teams of eight to 10. You can also just sign up, and a group will be formed for you. To thank the volunteers, a barbecue sponsored by RE/MAX Realty Specialists Inc. will be held after the cleanup at McCrae House. The Boathouse is hosting a community appreciation event June 4 at 8 p.m. For more information, call 824-2091.

Trillium Children's School at 577 Willow Rd. will hold a spring fair May 30 from 11 a.m. to 2:30 p.m. The fair will open with a spring story and close with maypole dancing. It will also feature plant and bake sales, children's crafts and games, handmade children's toys for sale, a hot buffet and a visit with the spring fairy.

# On The Road to Recovery

*Arboretum elm recovery project asks for public's help in finding last surviving mature white elms in Ontario*

**T**HE MAJESTIC ELM was almost wiped out by Dutch elm disease in this century, but now it's on the road to recovery... with a little help from trees that survived the disease.

The elm recovery project at the University of Guelph's Arboretum plans to locate, with the public's assistance, about 50 to 60 known surviving mature white elms in Ontario and use them to create a seed orchard that's resistant to Dutch elm disease.

Once located, the trees will be genetically tested for disease resistance (by the Forestry Department at the University of Toronto), then used to produce grafted clones for the orchard. These clones will be monitored continually and will eventually yield seed that's resistant to Dutch elm disease.

"The concept is to do what nature does best — build genetic diversity," says interpretive horticulturist Henry Kock, who is heading the project.

Diversity in nature — which ensures survival of threats like climate change, drought, insects and disease — is key to the project. By pulling together grafted clones of healthy trees and relying on random pollination, researchers will be able to create seeds with dynamic resistance to the disease and its mutations, says Arboretum director Prof. Alan Watson.

"A seed orchard with a range of genetic characteristics will be able to produce large quantities of resistant seeds for healthy future generations of elm," he says.

Because of its diversity, the new project differs from a similar project

in the United States that created a disease-resistant elm from a small gene pool of five or six closely related clones. Unfortunately, Dutch elm disease has since been reported in one of the U.S. clones, pointing to the need for greater genetic variety and a recovery program that uses native non-clonal seed production, says Kock.

"Open pollination of a diversity of trees will ensure diversity in seed production from climate-adapted races of Ontario's resistant elms," he says.

Dutch elm disease is caused by a fungus carried by elm bark beetles, which enter elms when they are 15 to 25 centimetres in diameter or larger. It was originally spread throughout North America from elm burls imported for the furniture industry in

the 1930s and 1940s. The disease spread rapidly and virtually eliminated elm as an urban tree and reduced its status as a forest species in Ontario by the early 1970s.

Although disease-resistant mature elms are rare, non-resistant elms that are too young for the beetle but old enough to flower are common in the Ontario landscape. Because airborne pollen from these non-resistant trees is the common pollinator for isolated resistant survivors, there is little opportunity to produce seeds that carry the genetic traits of resistance. But the Arboretum's seed orchard will bring disease-resistant elms together to ensure future survival.

"What we are doing is speeding up the natural process," says Kock. "In Asia, where the disease origi-

nated, elm trees are now disease-resistant. That gave us a clue as to what's going on."

To help build a diverse gene pool for the seed orchard, the Arboretum wants to hear from people who know of specimens of white elms more than 75 centimetres in diameter or who are able to support the project through sponsorship. For more information about the project, call Kock at Ext. 6443 or send e-mail to [hkock@uoguelph.ca](mailto:hkock@uoguelph.ca).

Co-operation for the elm recovery project has been received from the Forest Gene Conservation Association of Ontario and the Forestry Department at the University of Toronto.

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